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(54) Title: HUMAN GENES AND GENE EXPRESSION PRODUCTS

(57) Abstract

This invention relates to novel human polynucleotides and variants thereof, their encoded polypeptides and variants thereof, to genes corresponding to these polynucleotides and to proteins expressed by the genes. The invention also relates to diagnostic and therapeutic agents employing such novel human polynucleotides, their corresponding genes or gene products, e.g., these genes and proteins, including probes, antisense constructs, and antibodies.

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HUMAN GENES AND GENE EXPRESSION PRODUCTS

Field of the Invention

The present invention relates to polynucleotides of human origin and the encoded gene products.

Background of the Invention

Identification of novel polynucleotides, particularly those that encode an expressed gene product, is important in the advancement of drug discovery, diagnostic technologies, and the understanding of the progression and nature of complex diseases such as cancer. Identification of genes expressed in different cell types isolated from sources that differ in disease state or stage, developmental stage, exposure to various environmental factors, the tissue of origin, the species from which the tissue was isolated, and the like is key to identifying the genetic factors that are responsible for the phenotypes associated with these various differences.

This invention provides novel human polynucleotides, the polypeptides encoded by these polynucleotides, and the genes and proteins corresponding to these novel polynucleotides.

Summary of the Invention

This invention relates to novel human polynucleotides and variants thereof, their encoded polypeptides and variants thereof, to genes corresponding to these polynucleotides and to proteins expressed by the genes. The invention also relates to diagnostics and therapeutics comprising such novel human polynucleotides, their corresponding genes or gene products, including probes, antisense nucleotides, and antibodies. The polynucleotides of the invention correspond to a polynucleotide comprising the sequence information of at least one of SEQ ID NOS:1-1079.

Various aspects and embodiments of the invention will be readily apparent to the ordinarily skilled artisan upon reading the description provided herein.

Detailed Description of the Invention

The invention relates to polynucleotides comprising the disclosed nucleotide sequences, to full length cDNA, mRNA genomic sequences, and genes corresponding to these sequences and degenerate variants thereof, and to polypeptides encoded by the polynucleotides of the invention and polypeptide variants. The following detailed description describes the polynucleotide compositions encompassed by the invention, methods for obtaining cDNA or genomic DNA encoding a full-length gene product, expression of these polynucleotides and genes, identification of structural motifs of the polynucleotides and genes, identification of the function of a gene product encoded by a gene corresponding to a polynucleotide of the invention, use of the provided polynucleotides as probes and in mapping and in tissue profiling, use of the corresponding polypeptides and other gene products to raise antibodies, and use of the polynucleotides and their encoded gene products for therapeutic and diagnostic purposes.

Polynucleotide Compositions

The scope of the invention with respect to polynucleotide compositions includes, but is not necessarily limited to, polynucleotides having a sequence set forth in any one of SEQ ID NOS:1-1079; polynucleotides obtained from the biological materials described herein or other biological sources (particularly human sources) by hybridization under stringent conditions (particularly conditions of high stringency); genes corresponding to the provided polynucleotides; variants of the provided polynucleotides and their corresponding genes, particularly those variants that retain a biological activity of the encoded gene product (*e.g.*, a biological activity ascribed to a gene product corresponding to the provided polynucleotides as a result of the assignment of the gene product to a protein family(ies) and/or identification of a functional domain present in the gene product). Other nucleic acid compositions contemplated by and within the scope of the present invention will be readily apparent to one of ordinary skill in the art when provided with the disclosure here. "Polynucleotide" and "nucleic acid" as used herein with reference to nucleic acids of the composition is not intended to be limiting as to the length or structure of the nucleic acid unless specifically indicted.

The invention features polynucleotides that are expressed in human tissue, specifically human colon, breast, and/or lung tissue. Novel nucleic acid compositions of the invention of particular interest comprise a sequence set forth in any one of SEQ ID NOS:1-1079 or an identifying sequence thereof. An "identifying sequence" is a contiguous sequence of residues at least about 10 nt to about 20 nt in length, usually at least about 50 nt to about 100 nt in length, that uniquely identifies a polynucleotide sequence, *e.g.*, exhibits less than 90%, usually less than about 80% to about 85% sequence identity to any contiguous nucleotide sequence of more than about 20 nt. Thus, the subject novel nucleic acid compositions include full length cDNAs or mRNAs that encompass an identifying sequence of contiguous nucleotides from any one of SEQ ID NOS: 1-1079.

The polynucleotides of the invention also include polynucleotides having sequence similarity or sequence identity. Nucleic acids having sequence similarity are detected by hybridization under low stringency conditions, for example, at 50°C and 10XSSC (0.9 M saline/0.09 M sodium citrate) and remain bound when subjected to washing at 55°C in 1XSSC. Sequence identity can be determined by hybridization under stringent conditions, for example, at 50°C or higher and 0.1XSSC (9 mM saline/0.9 mM sodium citrate). Hybridization methods and conditions are well known in the art, see, *e.g.*, USPN 5,707,829. Nucleic acids that are substantially identical to the provided polynucleotide sequences, *e.g.* allelic variants, genetically altered versions of the gene, *etc.*, bind to the provided polynucleotide sequences (SEQ ID NOS:1-1079) under stringent hybridization conditions. By using probes, particularly labeled probes of DNA sequences, one can isolate homologous or related genes. The source of homologous genes can be any species, *e.g.* primate

species, particularly human; rodents, such as rats and mice; canines, felines, bovines, ovines, equines, yeast, nematodes, *etc.*

Preferably, hybridization is performed using at least 15 contiguous nucleotides (nt) of at least one of SEQ ID NOS:1-1079. That is, when at least 15 contiguous nt of one of the disclosed SEQ ID NOS. is used as a probe, the probe will preferentially hybridize with a nucleic acid comprising the complementary sequence, allowing the identification and retrieval of the nucleic acids that uniquely hybridize to the selected probe. Probes from more than one SEQ ID NO. can hybridize with the same nucleic acid if the cDNA from which they were derived corresponds to one mRNA. Probes of more than 15 nt can be used, e.g., probes of from about 18 nt to about 100 nt, but 15 nt represents sufficient sequence for unique identification.

The polynucleotides of the invention also include naturally occurring variants of the nucleotide sequences (*e.g.*, degenerate variants, allelic variants, *etc.*). Variants of the polynucleotides of the invention are identified by hybridization of putative variants with nucleotide sequences disclosed herein, preferably by hybridization under stringent conditions. For example, by using appropriate wash conditions, variants of the polynucleotides of the invention can be identified where the allelic variant exhibits at most about 25-30% base pair (bp) mismatches relative to the selected polynucleotide probe. In general, allelic variants contain 15-25% bp mismatches, and can contain as little as even 5-15%, or 2-5%, or 1-2% bp mismatches, as well as a single bp mismatch.

The invention also encompasses homologs corresponding to the polynucleotides of SEQ ID NOS:1-1079, where the source of homologous genes can be any mammalian species, *e.g.*, primate species, particularly human; rodents, such as rats; canines, felines, bovines, ovines, equines, yeast, nematodes, etc. Between mammalian species, *e.g.*, human and mouse, homologs generally have substantial sequence similarity, *e.g.*, at least 75% sequence identity, usually at least 90%, more usually at least 95% between nucleotide sequences. Sequence similarity is calculated based on a reference sequence, which may be a subset of a larger sequence, such as a conserved motif, coding region, flanking region, *etc.* A reference sequence will usually be at least about 18 contiguous nt long, more usually at least about 30 nt long, and may extend to the complete sequence that is being compared. Algorithms for sequence analysis are known in the art, such as gapped BLAST, described in Altschul, et al. *Nucleic Acids Res.* (1997) *25*:3389-3402.

In general, variants of the invention have a sequence identity greater than at least about 65%, preferably at least about 75%, more preferably at least about 85%, and can be greater than at least about 90% or more as determined by the Smith-Waterman homology search algorithm as implemented in MPSRCH program (Oxford Molecular). For the purposes of this invention, a preferred method of calculating percent identity is the Smith-Waterman algorithm, using the following. Global DNA sequence identity must be greater than 65% as determined by the Smith-

Waterman homology search algorithm as implemented in MPSRCH program (Oxford Molecular) using an affine gap search with the following search parameters: gap open penalty, 12; and gap extension penalty, 1.

The subject nucleic acids can be cDNAs or genomic DNAs, as well as fragments thereof, particularly fragments that encode a biologically active gene product and/or are useful in the methods disclosed herein (*e.g.*, in diagnosis, as a unique identifier of a differentially expressed gene of interest, *etc.*). The term "cDNA" as used herein is intended to include all nucleic acids that share the arrangement of sequence elements found in native mature mRNA species, where sequence elements are exons and 3' and 5' non-coding regions. Normally mRNA species have contiguous exons, with the intervening introns, when present, being removed by nuclear RNA splicing, to create a continuous open reading frame encoding a polypeptide of the invention.

A genomic sequence of interest comprises the nucleic acid present between the initiation codon and the stop codon, as defined in the listed sequences, including all of the introns that are normally present in a native chromosome. It can further include the 3' and 5' untranslated regions found in the mature mRNA. It can further include specific transcriptional and translational regulatory sequences, such as promoters, enhancers, *etc.*, including about 1 kb, but possibly more, of flanking genomic DNA at either the 5' and 3' end of the transcribed region. The genomic DNA can be isolated as a fragment of 100 kbp or smaller; and substantially free of flanking chromosomal sequence. The genomic DNA flanking the coding region, either 3' and 5', or internal regulatory sequences as sometimes found in introns, contains sequences required for proper tissue, stage-specific, or disease-state specific expression.

The nucleic acid compositions of the subject invention can encode all or a part of the subject polypeptides. Double or single stranded fragments can be obtained from the DNA sequence by chemically synthesizing oligonucleotides in accordance with conventional methods, by restriction enzyme digestion, by PCR amplification, *etc.* Isolated polynucleotides and polynucleotide fragments of the invention comprise at least about 10, about 15, about 20, about 35, about 50, about 100, about 150 to about 200, about 250 to about 300, or about 350 contiguous nt selected from the polynucleotide sequences as shown in SEQ ID NOS:1-1079. For the most part, fragments will be of at least 15 nt, usually at least 18 nt or 25 nt, and up to at least about 50 contiguous nt in length or more. In a preferred embodiment, the polynucleotide molecules comprise a contiguous sequence of at least 12 nt selected from the group consisting of the polynucleotides shown in SEQ ID NOS:1-1079.

Probes specific to the polynucleotides of the invention can be generated using the polynucleotide sequences disclosed in SEQ ID NOS:1-1079. The probes are preferably at least about a 12, 15, 16, 18, 20, 22, 24, or 25 nt fragment of a corresponding contiguous sequence of SEQ ID

NOS:1-1079, and can be less than 2, 1, 0.5, 0.1, or 0.05 kb in length. The probes can be synthesized chemically or can be generated from longer polynucleotides using restriction enzymes. The probes can be labeled, for example, with a radioactive, biotinylated, or fluorescent tag. Preferably, probes are designed based upon an identifying sequence of a polynucleotide of one of SEQ ID NOS:1-1079. More preferably, probes are designed based on a contiguous sequence of one of the subject polynucleotides that remain unmasked following application of a masking program for masking low complexity (*e.g.*, XBLAST) to the sequence., *i.e.*, one would select an unmasked region, as indicated by the polynucleotides outside the poly-n stretches of the masked sequence produced by the masking program.

The polynucleotides of the subject invention are isolated and obtained in substantial purity, generally as other than an intact chromosome. Usually, the polynucleotides, either as DNA or RNA, will be obtained substantially free of other naturally-occurring nucleic acid sequences, generally being at least about 50%, usually at least about 90% pure and are typically "recombinant", *e.g.*, flanked by one or more nucleotides with which it is not normally associated on a naturally occurring chromosome.

The polynucleotides of the invention can be provided as a linear molecule or within a circular molecule, and can be provided within autonomously replicating molecules (vectors) or within molecules without replication sequences. Expression of the polynucleotides can be regulated by their own or by other regulatory sequences known in the art. The polynucleotides of the invention can be introduced into suitable host cells using a variety of techniques available in the art, such as transferrin polycation-mediated DNA transfer, transfection with naked or encapsulated nucleic acids, liposome-mediated DNA transfer, intracellular transportation of DNA-coated latex beads, protoplast fusion, viral infection, electroporation, gene gun, calcium phosphate-mediated transfection, and the like.

The subject nucleic acid compositions can be used to, for example, produce polypeptides, as probes for the detection of mRNA of the invention in biological samples (*e.g.*, extracts of human cells) to generate additional copies of the polynucleotides, to generate ribozymes or antisense oligonucleotides, and as single stranded DNA probes or as triple-strand forming oligonucleotides. The probes described herein can be used to, for example, determine the presence or absence of the polynucleotide sequences as shown in SEQ ID NOS:1-1079 or variants thereof in a sample. These and other uses are described in more detail below.

Use of Polynucleotides to Obtain Full-Length cDNA, Gene, and Promoter Region

Full-length cDNA molecules comprising the disclosed polynucleotides are obtained as follows. A polynucleotide having a sequence of one of SEQ ID NOS:1-1079, or a portion thereof comprising at least 12, 15, 18, or 20 nt, is used as a hybridization probe to detect hybridizing members of a cDNA library using probe design methods, cloning methods, and clone selection

techniques such as those described in USPN 5,654,173. Libraries of cDNA are made from selected tissues, such as normal or tumor tissue, or from tissues of a mammal treated with, for example, a pharmaceutical agent. Preferably, the tissue is the same as the tissue from which the polynucleotides of the invention were isolated, as both the polynucleotides described herein and the cDNA represent expressed genes. Most preferably, the cDNA library is made from the biological material described herein in the Examples. The choice of cell type for library construction can be made after the identity of the protein encoded by the gene corresponding to the polynucleotide of the invention is known. This will indicate which tissue and cell types are likely to express the related gene, and thus represent a suitable source for the mRNA for generating the cDNA. Where the provided polynucleotides are isolated from cDNA libraries, the libraries are prepared from mRNA of human colon cells, more preferably, human colon cancer cells, even more preferably, from a highly metastatic colon cell, Km12L4-A.

Techniques for producing and probing nucleic acid sequence libraries are described, for example, in Sambrook *et al.*, *Molecular Cloning: A Laboratory Manual, 2nd Ed.*, (1989) Cold Spring Harbor Press, Cold Spring Harbor, NY. The cDNA can be prepared by using primers based on sequence from SEQ ID NOS:1-1079. In one embodiment, the cDNA library can be made from only poly-adenylated mRNA. Thus, poly-T primers can be used to prepare cDNA from the mRNA.

Members of the library that are larger than the provided polynucleotides, and preferably that encompass the complete coding sequence of the native message, are obtained. In order to confirm that the entire cDNA has been obtained, RNA protection experiments are performed as follows. Hybridization of a full-length cDNA to an mRNA will protect the RNA from RNase degradation. If the cDNA is not full length, then the portions of the mRNA that are not hybridized will be subject to RNase degradation. This is assayed, as is known in the art, by changes in electrophoretic mobility on polyacrylamide gels, or by detection of released monoribonucleotides. Sambrook *et al., Molecular Cloning: A Laboratory Manual, 2nd Ed.*, (1989) Cold Spring Harbor Press, Cold Spring Harbor, NY. In order to obtain additional sequences 5' to the end of a partial cDNA, 5' RACE (*PCR Protocols: A Guide to Methods and Applications*, (1990) Academic Press, Inc.) can be performed.

Genomic DNA is isolated using the provided polynucleotides in a manner similar to the isolation of full-length cDNAs. Briefly, the provided polynucleotides, or portions thereof, are used as probes to libraries of genomic DNA. Preferably, the library is obtained from the cell type that was used to generate the polynucleotides of the invention, but this is not essential. Most preferably, the genomic DNA is obtained from the biological material described herein in the Examples. Such libraries can be in vectors suitable for carrying large segments of a genome, such as P1 or YAC, as described in detail in Sambrook *et al.*, 9.4-9.30. In addition, genomic sequences can be isolated from human BAC libraries, which are commercially available from Research Genetics, Inc., Huntsville,

Alabama, USA, for example. In order to obtain additional 5' or 3' sequences, chromosome walking is performed, as described in Sambrook *et al.*, such that adjacent and overlapping fragments of genomic DNA are isolated. These are mapped and pieced together, as is known in the art, using restriction digestion enzymes and DNA ligase.

Using the polynucleotide sequences of the invention, corresponding full-length genes can be isolated using both classical and PCR methods to construct and probe cDNA libraries. Using either method, Northern blots, preferably, are performed on a number of cell types to determine which cell lines express the gene of interest at the highest level. Classical methods of constructing cDNA libraries are taught in Sambrook *et al.*, *supra*. With these methods, cDNA can be produced from mRNA and inserted into viral or expression vectors. Typically, libraries of mRNA comprising poly(A) tails can be produced with poly(T) primers. Similarly, cDNA libraries can be produced using the instant sequences as primers.

PCR methods are used to amplify the members of a cDNA library that comprise the desired insert. In this case, the desired insert will contain sequence from the full length cDNA that corresponds to the instant polynucleotides. Such PCR methods include gene trapping and RACE methods. Gene trapping entails inserting a member of a cDNA library into a vector. The vector then is denatured to produce single stranded molecules. Next, a substrate-bound probe, such a biotinylated oligo, is used to trap cDNA inserts of interest. Biotinylated probes can be linked to an avidin-bound solid substrate. PCR methods can be used to amplify the trapped cDNA. To trap sequences corresponding to the full length genes, the labeled probe sequence is based on the polynucleotide sequences of the invention. Random primers or primers specific to the library vector can be used to amplify the trapped cDNA. Such gene trapping techniques are described in Gruber *et al.*, WO 95/04745 and Gruber *et al.*, USPN 5,500,356. Kits are commercially available to perform gene trapping experiments from, for example, Life Technologies, Gaithersburg, Maryland, USA.

"Rapid amplification of cDNA ends," or RACE, is a PCR method of amplifying cDNAs from a number of different RNAs. The cDNAs are ligated to an oligonucleotide linker, and amplified by PCR using two primers. One primer is based on sequence from the instant polynucleotides, for which full length sequence is desired, and a second primer comprises sequence that hybridizes to the oligonucleotide linker to amplify the cDNA. A description of this methods is reported in WO 97/19110. In preferred embodiments of RACE, a common primer is designed to anneal to an arbitrary adaptor sequence ligated to cDNA ends (Apte and Siebert, *Biotechniques* (1993) *15*:890-893; Edwards *et al.*, *Nuc. Acids Res.* (1991) *19*:5227-5232). When a single gene-specific RACE primer is paired with the common primer, preferential amplification of sequences between the single gene specific primer and the common primer occurs. Commercial cDNA pools modified for use in RACE are available.

Another PCR-based method generates full-length cDNA library with anchored ends without needing specific knowledge of the cDNA sequence. The method uses lock-docking primers (I-VI), where one primer, poly TV (I-III) locks over the polyA tail of eukaryotic mRNA producing first strand synthesis and a second primer, polyGH (IV-VI) locks onto the polyC tail added by terminal deoxynucleotidyl transferase (TdT)(see, e.g., WO 96/40998).

The promoter region of a gene generally is located 5' to the initiation site for RNA polymerase II. Hundreds of promoter regions contain the "TATA" box, a sequence such as TATTA or TATAA, which is sensitive to mutations. The promoter region can be obtained by performing 5' RACE using a primer from the coding region of the gene. Alternatively, the cDNA can be used as a probe for the genomic sequence. and the region 5' to the coding region is identified by "walking up." If the gene is highly expressed or differentially expressed, the promoter from the gene can be of use in a regulatory construct for a heterologous gene.

Once the full-length cDNA or gene is obtained, DNA encoding variants can be prepared by site-directed mutagenesis, described in detail in Sambrook *et al.*, 15.3-15.63. The choice of codon or nucleotide to be replaced can be based on disclosure herein on optional changes in amino acids to achieve altered protein structure and/or function.

As an alternative method to obtaining DNA or RNA from a biological material, nucleic acid comprising nucleotides having the sequence of one or more polynucleotides of the invention can be synthesized. Thus, the invention encompasses nucleic acid molecules ranging in length from 15 nt (corresponding to at least 15 contiguous nt of one of SEQ ID NOS:1-1079) up to a maximum length suitable for one or more biological manipulations, including replication and expression, of the nucleic acid molecule. The invention includes but is not limited to (a) nucleic acid having the size of a full gene, and comprising at least one of SEQ ID NOS:1-1079; (b) the nucleic acid of (a) also comprising at least one additional gene, operably linked to permit expression of a fusion protein; (c) an expression vector comprising (a) or (b); (d) a plasmid comprising (a) or (b) ; and (e) a recombinant viral particle comprising (a) or (b). Once provided with the polynucleotides disclosed herein, construction or preparation of (a) - (e) are well within the skill in the art.

The sequence of a nucleic acid comprising at least 15 contiguous nt of at least any one of SEQ ID NOS:1-1079, preferably the entire sequence of at least any one of SEQ ID NOS:1-1079, is not limited and can be any sequence of A, T, G, and/or C (for DNA) and A, U, G, and/or C (for RNA) or modified bases thereof, including inosine and pseudouridine. The choice of sequence will depend on the desired function and can be dictated by coding regions desired, the intron-like regions desired, and the regulatory regions desired. Where the entire sequence of any one of SEQ ID NOS:1-1079 is within the nucleic acid, the nucleic acid obtained is referred to herein as a polynucleotide comprising the sequence of any one of SEQ ID NOS:1-1079.

Expression of Polypeptide Encoded by Full-Length cDNA or Full-Length Gene

The provided polynucleotides (*e.g.*, a polynucleotide having a sequence of one of SEQ ID NOS:1-1079), the corresponding cDNA, or the full-length gene is used to express a partial or complete gene product. Constructs of polynucleotides having sequences of SEQ ID NOS:1-1079 can also be generated synthetically. Alternatively, single-step assembly of a gene and entire plasmid from large numbers of oligodeoxyribonucleotides is described by, *e.g.*, Stemmer *et al.*, *Gene (Amsterdam)* (1995) *164(1)*:49-53. In this method, assembly PCR (the synthesis of long DNA sequences from large numbers of oligodeoxyribonucleotides (oligos)) is described. The method is derived from DNA shuffling (Stemmer, *Nature* (1994) *370*:389-391), and does not rely on DNA ligase, but instead relies on DNA polymerase to build increasingly longer DNA fragments during the assembly process.

Appropriate polynucleotide constructs are purified using standard recombinant DNA techniques as described in, for example, Sambrook *et al.*, *Molecular Cloning: A Laboratory Manual, 2nd Ed.*, (1989) Cold Spring Harbor Press, Cold Spring Harbor, NY, and under current regulations described in United States Dept. of HHS, National Institute of Health (NIH) Guidelines for Recombinant DNA Research. The gene product encoded by a polynucleotide of the invention is expressed in any expression system, including, for example, bacterial, yeast, insect, amphibian and mammalian systems. Vectors, host cells and methods for obtaining expression in same are well known in the art. Suitable vectors and host cells are described in USPN 5,654,173.

Polynucleotide molecules comprising a polynucleotide sequence provided herein are generally propagated by placing the molecule in a vector. Viral and non-viral vectors are used, including plasmids. The choice of plasmid will depend on the type of cell in which propagation is desired and the purpose of propagation. Certain vectors are useful for amplifying and making large amounts of the desired DNA sequence. Other vectors are suitable for expression in cells in culture. Still other vectors are suitable for transfer and expression in cells in a whole animal or person. The choice of appropriate vector is well within the skill of the art. Many such vectors are available commercially. Methods for preparation of vectors comprising a desired sequence are well known in the art.

The polynucleotides set forth in SEQ ID NOS:1-1079 or their corresponding full-length polynucleotides are linked to regulatory sequences as appropriate to obtain the desired expression properties. These can include promoters (attached either at the 5' end of the sense strand or at the 3' end of the antisense strand), enhancers, terminators, operators, repressors, and inducers. The promoters can be regulated or constitutive. In some situations it may be desirable to use conditionally active promoters, such as tissue-specific or developmental stage-specific promoters.

These are linked to the desired nucleotide sequence using the techniques described above for linkage to vectors. Any techniques known in the art can be used.

When any of the above host cells, or other appropriate host cells or organisms, are used to replicate and/or express the polynucleotides or nucleic acids of the invention, the resulting replicated nucleic acid, RNA, expressed protein or polypeptide, is within the scope of the invention as a product of the host cell or organism. The product is recovered by any appropriate means known in the art.

Once the gene corresponding to a selected polynucleotide is identified, its expression can be regulated in the cell to which the gene is native. For example, an endogenous gene of a cell can be regulated by an exogenous regulatory sequence as disclosed in USPN 5,641,670.

Identification of Functional and Structural Motifs of Novel Genes Screening Against Publicly Available Databases

Translations of the nucleotide sequence of the provided polynucleotides, cDNAs or full genes can be aligned with individual known sequences. Similarity with individual sequences can be used to determine the activity of the polypeptides encoded by the polynucleotides of the invention. Also, sequences exhibiting similarity with more than one individual sequence can exhibit activities that are characteristic of either or both individual sequences.

The full length sequences and fragments of the polynucleotide sequences of the nearest neighbors can be used as probes and primers to identify and isolate the full length sequence corresponding to provided polynucleotides. The nearest neighbors can indicate a tissue or cell type to be used to construct a library for the full-length sequences corresponding to the provided polynucleotides.

Typically, a selected polynucleotide is translated in all six frames to determine the best alignment with the individual sequences. The sequences disclosed herein in the Sequence Listing are in a 5' to 3' orientation and translation in three frames can be sufficient (with a few specific exceptions as described in the Examples). These amino acid sequences are referred to, generally, as query sequences, which will be aligned with the individual sequences. Databases with individual sequences are described in "Computer Methods for Macromolecular Sequence Analysis" *Methods in Enzymology* (1996) *266*, Doolittle, Academic Press, Inc., a division of Harcourt Brace & Co., San Diego, California, USA. Databases include GenBank, EMBL, and DNA Database of Japan (DDBJ).

Query and individual sequences can be aligned using the methods and computer programs described above, and include BLAST 2.0, available over the world wide web at http://www.ncbi.nlm.nih.gov/BLAST/. See also Altschul, et al. *Nucleic Acids Res.* (1997) *25*:3389-3402. Another alignment algorithm is Fasta, available in the Genetics Computing Group (GCG) package, Madison, Wisconsin, USA, a wholly owned subsidiary of Oxford Molecular Group, Inc. Other techniques for alignment are described in Doolittle, *supra*. Preferably, an alignment program

that permits gaps in the sequence is utilized to align the sequences. The Smith-Waterman is one type of algorithm that permits gaps in sequence alignments. See *Meth. Mol. Biol.* (1997) *70*: 173-187. Also, the GAP program using the Needleman and Wunsch alignment method can be utilized to align sequences. An alternative search strategy uses MPSRCH software, which runs on a MASPAR computer. MPSRCH uses a Smith-Waterman algorithm to score sequences on a massively parallel computer. This approach improves ability to identify sequences that are distantly related matches, and is especially tolerant of small gaps and nucleotide sequence errors. Amino acid sequences encoded by the provided polynucleotides can be used to search both protein and DNA databases. Incorporated herein by reference are all sequences that have been made public as of the filing date of this application by any of the DNA or protein sequence databases, including the patent databases (*e.g.*, GeneSeq). Also incorporated by reference are those sequences that have been submitted to these databases as of the filing date of the present application but not made public until after the filing date of the present application.

Results of individual and query sequence alignments can be divided into three categories: high similarity, weak similarity, and no similarity. Individual alignment results ranging from high similarity to weak similarity provide a basis for determining polypeptide activity and/or structure. Parameters for categorizing individual results include: percentage of the alignment region length where the strongest alignment is found, percent sequence identity, and p value. The percentage of the alignment region length is calculated by counting the number of residues of the individual sequence found in the region of strongest alignment, *e.g.*, contiguous region of the individual sequence that contains the greatest number of residues that are identical to the residues of the corresponding region of the aligned query sequence. This number is divided by the total residue length of the query sequence to calculate a percentage. For example, a query sequence of 20 amino acid residues might be aligned with a 20 amino acid region of an individual sequence. The individual sequence might be identical to amino acid residues 5, 9-15, and 17-19 of the query sequence. The region of strongest alignment is thus the region stretching from residue 9-19, an 11 amino acid stretch. The percentage of the alignment region length is: 11 (length of the region of strongest alignment) divided by (query sequence length) 20 or 55%.

Percent sequence identity is calculated by counting the number of amino acid matches between the query and individual sequence and dividing total number of matches by the number of residues of the individual sequences found in the region of strongest alignment. Thus, the percent identity in the example above would be 10 matches divided by 11 amino acids, or approximately, 90.9%

P value is the probability that the alignment was produced by chance. For a single alignment, the p value can be calculated according to Karlin *et al.*, *Proc. Natl. Acad. Sci.* (1990) *87*:2264 and

Karlin *et al., Proc. Natl. Acad. Sci.* (1993) *90*. The p value of multiple alignments using the same query sequence can be calculated using an heuristic approach described in Altschul *et al., Nat. Genet.* (1994) *6*:119. Alignment programs such as BLAST program can calculate the p value. See also Altschul *et al., Nucleic Acids Res.* (1997) *25*:3389-3402.

Another factor to consider for determining identity or similarity is the location of the similarity or identity. Strong local alignment can indicate similarity even if the length of alignment is short. Sequence identity scattered throughout the length of the query sequence also can indicate a similarity between the query and profile sequences. The boundaries of the region where the sequences align can be determined according to Doolittle, *supra*; BLAST 2.0 (see, *e.g.*, Altschul, et al. *Nucleic Acids Res.* (1997) *25*:3389-3402) or FAST programs; or by determining the area where sequence identity is highest.

High Similarity. In general, in alignment results considered to be of high similarity, the percent of the alignment region length is typically at least about 55% of total length query sequence; more typically, at least about 58%; even more typically; at least about 60% of the total residue length of the query sequence. Usually, percent length of the alignment region can be as much as about 62%; more usually, as much as about 64%; even more usually, as much as about 66%. Further, for high similarity, the region of alignment, typically, exhibits at least about 75% of sequence identity; more typically, at least about 78%; even more typically; at least about 80% sequence identity. Usually, percent sequence identity can be as much as about 82%; more usually, as much as about 84%; even more usually, as much as about 86%.

The p value is used in conjunction with these methods. If high similarity is found, the query sequence is considered to have high similarity with a profile sequence when the p value is less than or equal to about 10^{-2}; more usually; less than or equal to about 10^{-3}; even more usually; less than or equal to about 10^{-4}. More typically, the p value is no more than about 10^{-5}; more typically; no more than or equal to about 10^{-10}; even more typically; no more than or equal to about 10^{-15} for the query sequence to be considered high similarity.

Weak Similarity. In general, where alignment results considered to be of weak similarity, there is no minimum percent length of the alignment region nor minimum length of alignment. A better showing of weak similarity is considered when the region of alignment is, typically, at least about 15 amino acid residues in length; more typically, at least about 20; even more typically; at least about 25 amino acid residues in length. Usually, length of the alignment region can be as much as about 30 amino acid residues; more usually, as much as about 40; even more usually, as much as about 60 amino acid residues. Further, for weak similarity, the region of alignment, typically,

exhibits at least about 35% of sequence identity; more typically, at least about 40%; even more typically; at least about 45% sequence identity. Usually, percent sequence identity can be as much as about 50%; more usually, as much as about 55%; even more usually, as much as about 60%.

If low similarity is found. the query sequence is considered to have weak similarity with a profile sequence when the p value is usually less than or equal to about 10^{-2}; more usually; less than or equal to about 10^{-3}; even more usually; less than or equal to about 10^{-4}. More typically, the p value is no more than about 10^{-5}; more usually; no more than or equal to about 10^{-10}; even more usually; no more than or equal to about 10^{-15} for the query sequence to be considered weak similarity.

Similarity Determined by Sequence Identity Alone. Sequence identity alone can be used to determine similarity of a query sequence to an individual sequence and can indicate the activity of the sequence. Such an alignment. preferably, permits gaps to align sequences. Typically, the query sequence is related to the profile sequence if the sequence identity over the entire query sequence is at least about 15%; more typically, at least about 20%; even more typically, at least about 25%; even more typically, at least about 50%. Sequence identity alone as a measure of similarity is most useful when the query sequence is usually, at least 80 residues in length; more usually, 90 residues; even more usually, at least 95 amino acid residues in length. More typically, similarity can be concluded based on sequence identity alone when the query sequence is preferably 100 residues in length; more preferably, 120 residues in length; even more preferably, 150 amino acid residues in length.

Alignments with Profile and Multiple Aligned Sequences. Translations of the provided polynucleotides can be aligned with amino acid profiles that define either protein families or common motifs. Also, translations of the provided polynucleotides can be aligned to multiple sequence alignments (MSA) comprising the polypeptide sequences of members of protein families or motifs. Similarity or identity with profile sequences or MSAs can be used to determine the activity of the gene products (*e.g.*, polypeptides) encoded by the provided polynucleotides or corresponding cDNA or genes. For example, sequences that show an identity or similarity with a chemokine profile or MSA can exhibit chemokine activities.

Profiles can designed manually by (1) creating an MSA, which is an alignment of the amino acid sequence of members that belong to the family and (2) constructing a statistical representation of the alignment. Such methods are described, for example, in Birney *et al., Nucl. Acid Res.* (1996) *24(14)*: 2730-2739. MSAs of some protein families and motifs are publicly available. For example, http://genome.wustl.edu/Pfam/ includes MSAs of 547 different families and motifs. These MSAs are described also in Sonnhammer *et al., Proteins* (1997) *28*: 405-420. Other sources over the world

wide web include the site at http://www.embl-heidelberg.de/argos/ali/ali.html; alternatively, a message can be sent to ALI@EMBL-HEIDELBERG.DE for the information. A brief description of these MSAs is reported in Pascarella *et al.*, *Prot. Eng.* (1996) *9(3)*:249-251. Techniques for building profiles from MSAs are described in Sonnhammer *et al.*, *supra*; Birney *et al.*, *supra*; and "Computer Methods for Macromolecular Sequence Analysis," *Methods in Enzymology* (1996) *266*, Doolittle, Academic Press, Inc., San Diego, California, USA.

Similarity between a query sequence and a protein family or motif can be determined by (a) comparing the query sequence against the profile and/or (b) aligning the query sequence with the members of the family or motif. Typically, a program such as Searchwise is used to compare the query sequence to the statistical representation of the multiple alignment, also known as a profile (see Birney *et al.*, *supra)*. Other techniques to compare the sequence and profile are described in Sonnhammer *et al.*, *supra* and Doolittle, *supra*.

Next, methods described by Feng *et al.*, *J. Mol. Evol.* (1987) *25*:351 and Higgins *et al.*, *CABIOS* (1989) *5*:151 can be used align the query sequence with the members of a family or motif, also known as a MSA. Sequence alignments can be generated using any of a variety of software tools. Examples include PileUp, which creates a multiple sequence alignment, and is described in Feng *et al.*, *J. Mol. Evol.* (1987) *25*:351. Another method, GAP, uses the alignment method of Needleman *et al.*, *J. Mol. Biol.* (1970) *48*:443. GAP is best suited for global alignment of sequences. A third method, BestFit, functions by inserting gaps to maximize the number of matches using the local homology algorithm of Smith *et al.*, *Adv. Appl. Math.* (1981) *2*:482. In general, the following factors are used to determine if a similarity between a query sequence and a profile or MSA exists: (1) number of conserved residues found in the query sequence, (2) percentage of conserved residues found in the query sequence, (3) number of frameshifts, and (4) spacing between conserved residues.

Some alignment programs that both translate and align sequences can make any number of frameshifts when translating the nucleotide sequence to produce the best alignment. The fewer frameshifts needed to produce an alignment, the stronger the similarity or identity between the query and profile or MSAs. For example, a weak similarity resulting from no frameshifts can be a better indication of activity or structure of a query sequence, than a strong similarity resulting from two frameshifts. Preferably, three or fewer frameshifts are found in an alignment; more preferably two or fewer frameshifts; even more preferably, one or fewer frameshifts; even more preferably, no frameshifts are found in an alignment of query and profile or MSAs.

Conserved residues are those amino acids found at a particular position in all or some of the family or motif members. Alternatively, a position is considered conserved if only a certain class of amino acids is found in a particular position in all or some of the family members. For example, the

N-terminal position can contain a positively charged amino acid, such as lysine, arginine, or histidine.

Typically, a residue of a polypeptide is conserved when a class of amino acids or a single amino acid is found at a particular position in at least about 40% of all class members; more typically, at least about 50%; even more typically, at least about 60% of the members. Usually, a residue is conserved when a class or single amino acid is found in at least about 70% of the members of a family or motif; more usually, at least about 80%; even more usually, at least about 90%; even more usually, at least about 95%.

A residue is considered conserved when three unrelated amino acids are found at a particular position in the some or all of the members; more usually, two unrelated amino acids. These residues are conserved when the unrelated amino acids are found at particular positions in at least about 40% of all class member; more typically, at least about 50%; even more typically, at least about 60% of the members. Usually, a residue is conserved when a class or single amino acid is found in at least about 70% of the members of a family or motif; more usually, at least about 80%; even more usually, at least about 90%; even more usually, at least about 95%.

A query sequence has similarity to a profile or MSA when the query sequence comprises at least about 25% of the conserved residues of the profile or MSA; more usually, at least about 30%; even more usually; at least about 40%. Typically, the query sequence has a stronger similarity to a profile sequence or MSA when the query sequence comprises at least about 45% of the conserved residues of the profile or MSA; more typically, at least about 50%; even more typically; at least about 55%.

Identification of Secreted & Membrane-Bound Polypeptides

Both secreted and membrane-bound polypeptides of the present invention are of particular interest. For example, levels of secreted polypeptides can be assayed in body fluids that are convenient, such as blood, plasma, serum, and other body fluids such as urine, prostatic fluid and semen. Membrane-bound polypeptides are useful for constructing vaccine antigens or inducing an immune response. Such antigens would comprise all or part of the extracellular region of the membrane-bound polypeptides. Because both secreted and membrane-bound polypeptides comprise a fragment of contiguous hydrophobic amino acids, hydrophobicity predicting algorithms can be used to identify such polypeptides.

A signal sequence is usually encoded by both secreted and membrane-bound polypeptide genes to direct a polypeptide to the surface of the cell. The signal sequence usually comprises a stretch of hydrophobic residues. Such signal sequences can fold into helical structures. Membrane-bound polypeptides typically comprise at least one transmembrane region that possesses a stretch of hydrophobic amino acids that can transverse the membrane. Some transmembrane regions also

exhibit a helical structure. Hydrophobic fragments within a polypeptide can be identified by using computer algorithms. Such algorithms include Hopp & Woods, *Proc. Natl. Acad. Sci. USA* (1981) *78*:3824-3828; Kyte & Doolittle, *J. Mol. Biol.* (1982) *157*: 105-132; and RAOAR algorithm, Degli Esposti *et al.*, *Eur. J. Biochem.* (1990) *190*: 207-219.

Another method of identifying secreted and membrane-bound polypeptides is to translate the polynucleotides of the invention in all six frames and determine if at least 8 contiguous hydrophobic amino acids are present. Those translated polypeptides with at least 8; more typically, 10; even more typically, 12 contiguous hydrophobic amino acids are considered to be either a putative secreted or membrane bound polypeptide. Hydrophobic amino acids include alanine, glycine, histidine, isoleucine, leucine, lysine, methionine, phenylalanine, proline, threonine, tryptophan, tyrosine, and valine

Identification of the Function of an Expression Product of a Full-Length Gene

Ribozymes, antisense constructs, and dominant negative mutants can be used to determine function of the expression product of a gene corresponding to a polynucleotide provided herein. These methods and compositions are particularly useful where the provided novel polynucleotide exhibits no significant or substantial homology to a sequence encoding a gene of known function. Antisense molecules and ribozymes can be constructed from synthetic polynucleotides. Typically, the phosphoramidite method of oligonucleotide synthesis is used. See Beaucage *et al.*, *Tet. Lett.* (1981) *22*:1859 and USPN 4,668,777. Automated devices for synthesis are available to create oligonucleotides using this chemistry. Examples of such devices include Biosearch 8600, Models 392 and 394 by Applied Biosystems, a division of Perkin-Elmer Corp., Foster City, California, USA; and Expedite by Perceptive Biosystems, Framingham, Massachusetts, USA. Synthetic RNA, phosphate analog oligonucleotides, and chemically derivatized oligonucleotides can also be produced, and can be covalently attached to other molecules. RNA oligonucleotides can be synthesized, for example, using RNA phosphoramidites. This method can be performed on an automated synthesizer, such as Applied Biosystems, Models 392 and 394, Foster City, California, USA.

Phosphorothioate oligonucleotides can also be synthesized for antisense construction. A sulfurizing reagent, such as tetraethylthiruam disulfide (TETD) in acetonitrile can be used to convert the internucleotide cyanoethyl phosphite to the phosphorothioate triester within 15 minutes at room temperature. TETD replaces the iodine reagent, while all other reagents used for standard phosphoramidite chemistry remain the same. Such a synthesis method can be automated using Models 392 and 394 by Applied Biosystems, for example.

Oligonucleotides of up to 200 nt can be synthesized, more typically, 100 nt, more typically 50 nt; even more typically 30 to 40 nt. These synthetic fragments can be annealed and ligated

together to construct larger fragments. See, for example, Sambrook *et al., supra*. Trans-cleaving catalytic RNAs (ribozymes) are RNA molecules possessing endoribonuclease activity. Ribozymes are specifically designed for a particular target, and the target message must contain a specific nucleotide sequence. They are engineered to cleave any RNA species site-specifically in the background of cellular RNA. The cleavage event renders the mRNA unstable and prevents protein expression. Importantly, ribozymes can be used to inhibit expression of a gene of unknown function for the purpose of determining its function in an in vitro or in vivo context, by detecting the phenotypic effect. One commonly used ribozyme motif is the hammerhead, for which the substrate sequence requirements are minimal. Design of the hammerhead ribozyme, as well as therapeutic uses of ribozymes, are disclosed in Usman *et al., Current Opin. Struct. Biol.* (1996) *6*:527. Methods for production of ribozymes, including hairpin structure ribozyme fragments, methods of increasing ribozyme specificity, and the like are known in the art.

The hybridizing region of the ribozyme can be modified or can be prepared as a branched structure as described in Horn and Urdea, *Nucleic Acids Res.* (1989) *17*:6959. The basic structure of the ribozymes can also be chemically altered in ways familiar to those skilled in the art, and chemically synthesized ribozymes can be administered as synthetic oligonucleotide derivatives modified by monomeric units. In a therapeutic context, liposome mediated delivery of ribozymes improves cellular uptake, as described in Birikh *et al., Eur. J. Biochem.* (1997) *245*:1.

Antisense nucleic acids are designed to specifically bind to RNA, resulting in the formation of RNA-DNA or RNA-RNA hybrids, with an arrest of DNA replication, reverse transcription or messenger RNA translation. Antisense polynucleotides based on a selected polynucleotide sequence can interfere with expression of the corresponding gene. Antisense polynucleotides are typically generated within the cell by expression from antisense constructs that contain the antisense strand as the transcribed strand. Antisense polynucleotides based on the disclosed polynucleotides will bind and/or interfere with the translation of mRNA comprising a sequence complementary to the antisense polynucleotide. The expression products of control cells and cells treated with the antisense construct are compared to detect the protein product of the gene corresponding to the polynucleotide upon which the antisense construct is based. The protein is isolated and identified using routine biochemical methods.

Given the extensive background literature and clinical experience in antisense therapy, one skilled in the art can use selected polynucleotides of the invention as additional potential therapeutics. The choice of polynucleotide can be narrowed by first testing them for binding to "hot spot" regions of the genome of cancerous cells. If a polynucleotide is identified as binding to a "hot spot", testing the polynucleotide as an antisense compound in the corresponding cancer cells is warranted.

As an alternative method for identifying function of the gene corresponding to a polynucleotide disclosed herein, dominant negative mutations are readily generated for corresponding proteins that are active as homomultimers. A mutant polypeptide will interact with wild-type polypeptides (made from the other allele) and form a non-functional multimer. Thus, a mutation is in a substrate-binding domain, a catalytic domain, or a cellular localization domain. Preferably, the mutant polypeptide will be overproduced. Point mutations are made that have such an effect. In addition, fusion of different polypeptides of various lengths to the terminus of a protein can yield dominant negative mutants. General strategies are available for making dominant negative mutants (see, *e.g.*, Herskowitz, *Nature* (1987) *329*:219). Such techniques can be used to create loss of function mutations, which are useful for determining protein function.

Polypeptides and Variants Thereof

The polypeptides of the invention include those encoded by the disclosed polynucleotides, as well as nucleic acids that, by virtue of the degeneracy of the genetic code, are not identical in sequence to the disclosed polynucleotides. Thus, the invention includes within its scope a polypeptide encoded by a polynucleotide having the sequence of any one of SEQ ID NOS:1-1079 or a variant thereof.

In general, the term "polypeptide" as used herein refers to both the full length polypeptide encoded by the recited polynucleotide, the polypeptide encoded by the gene represented by the recited polynucleotide, as well as portions or fragments thereof. "Polypeptides" also includes variants of the naturally occurring proteins, where such variants are homologous or substantially similar to the naturally occurring protein, and can be of an origin of the same or different species as the naturally occurring protein (*e.g.*, human, murine, or some other species that naturally expresses the recited polypeptide, usually a mammalian species). In general, variant polypeptides have a sequence that has at least about 80%, usually at least about 90%, and more usually at least about 98% sequence identity with a differentially expressed polypeptide of the invention, as measured by BLAST 2.0 using the parameters described above. The variant polypeptides can be naturally or non-naturally glycosylated, *i.e.*, the polypeptide has a glycosylation pattern that differs from the glycosylation pattern found in the corresponding naturally occurring protein.

The invention also encompasses homologs of the disclosed polypeptides (or fragments thereof) where the homologs are isolated from other species, *i.e.* other animal or plant species, where such homologs, usually mammalian species, *e.g.* rodents, such as mice, rats; domestic animals, *e.g.*, horse, cow, dog, cat; and humans. By "homolog" is meant a polypeptide having at least about 35%, usually at least about 40% and more usually at least about 60% amino acid sequence identity to a particular differentially expressed protein as identified above, where sequence identity is determined using the BLAST 2.0 algorithm, with the parameters described *supra*.

In general, the polypeptides of the subject invention are provided in a non-naturally occurring environment, *e.g.* are separated from their naturally occurring environment. In certain embodiments, the subject protein is present in a composition that is enriched for the protein as compared to a control. As such, purified polypeptide is provided, where by purified is meant that the protein is present in a composition that is substantially free of non-differentially expressed polypeptides, where by substantially free is meant that less than 90%, usually less than 60% and more usually less than 50% of the composition is made up of non-differentially expressed polypeptides.

Also within the scope of the invention are variants; variants of polypeptides include mutants, fragments, and fusions. Mutants can include amino acid substitutions, additions or deletions. The amino acid substitutions can be conservative amino acid substitutions or substitutions to eliminate non-essential amino acids, such as to alter a glycosylation site, a phosphorylation site or an acetylation site, or to minimize misfolding by substitution or deletion of one or more cysteine residues that are not necessary for function. Conservative amino acid substitutions are those that preserve the general charge, hydrophobicity/ hydrophilicity, and/or steric bulk of the amino acid substituted. Variants can be designed so as to retain or have enhanced biological activity of a particular region of the protein (*e.g.*, a functional domain and/or, where the polypeptide is a member of a protein family, a region associated with a consensus sequence). Selection of amino acid alterations for production of variants can be based upon the accessibility (interior vs. exterior) of the amino acid (see, e.g., Go *et al, Int. J. Peptide Protein Res.* (1980) *15*:211), the thermostability of the variant polypeptide (see, e.g., Querol *et al., Prot. Eng.* (1996) *9*:265), desired glycosylation sites (see, e.g., Olsen and Thomsen, *J. Gen. Microbiol.* (1991) *137*:579), desired disulfide bridges (see, e.g., Clarke *et al., Biochemistry* (1993) *32*:4322; and Wakarchuk *et al., Protein Eng.* (1994) *7*:1379), desired metal binding sites (see, e.g., Toma *et al., Biochemistry* (1991) *30*:97, and Haezerbrouck *et al., Protein Eng.* (1993) *6*:643), and desired substitutions with in proline loops (see, e.g., Masul *et al., Appl. Env. Microbiol.* (1994) *60*:3579). Cysteine-depleted muteins can be produced as disclosed in USPN 4,959,314.

Variants also include fragments of the polypeptides disclosed herein, particularly biologically active fragments and/or fragments corresponding to functional domains. Fragments of interest will typically be at least about 10 aa to at least about 15 aa in length, usually at least about 50 aa in length, and can be as long as 300 aa in length or longer, but will usually not exceed about 1000 aa in length, where the fragment will have a stretch of amino acids that is identical to a polypeptide encoded by a polynucleotide having a sequence of any SEQ ID NOS:1-1079, or a homolog thereof. The protein variants described herein are encoded by polynucleotides that are

within the scope of the invention. The genetic code can be used to select the appropriat codons to construct the corresponding variants.

Computer-Related Embodiments

In general, a library of polynucleotides is a collection of sequence information, which information is provided in either biochemical form (*e.g.*, as a collection of polynucleotide molecules), or in electronic form (*e.g.*, as a collection of polynucleotide sequences stored in a computer-readable form, as in a computer system and/or as part of a computer program). The sequence information of the polynucleotides can be used in a variety of ways, *e.g.*, as a resource for gene discovery, as a representation of sequences expressed in a selected cell type (*e.g.*, cell type markers), and/or as markers of a given disease or disease state. In general, a disease marker is a representation of a gene product that is present in all cells affected by disease either at an increased or decreased level relative to a normal cell (*e.g.*, a cell of the same or similar type that is not substantially affected by disease). For example, a polynucleotide sequence in a library can be a polynucleotide that represents an mRNA, polypeptide, or other gene product encoded by the polynucleotide, that is either overexpressed or underexpressed in a breast ductal cell affected by cancer relative to a normal (*i.e.*, substantially disease-free) breast cell.

The nucleotide sequence information of the library can be embodied in any suitable form, *e.g.*, electronic or biochemical forms. For example, a library of sequence information embodied in electronic form comprises an accessible computer data file (or, in biochemical form, a collection of nucleic acid molecules) that contains the representative nucleotide sequences of genes that are differentially expressed (*e.g.*, overexpressed or underexpressed) as between, for example, i) a cancerous cell and a normal cell; ii) a cancerous cell and a dysplastic cell; iii) a cancerous cell and a cell affected by a disease or condition other than cancer; iv) a metastatic cancerous cell and a normal cell and/or non-metastatic cancerous cell; v) a malignant cancerous cell and a non-malignant cancerous cell (or a normal cell) and/or vi) a dysplastic cell relative to a normal cell. Other combinations and comparisons of cells affected by various diseases or stages of disease will be readily apparent to the ordinarily skilled artisan. Biochemical embodiments of the library include a collection of nucleic acids that have the sequences of the genes in the library, where the nucleic acids can correspond to the entire gene in the library or to a fragment thereof, as described in greater detail below.

The polynucleotide libraries of the subject invention generally comprise sequence information of a plurality of polynucleotide sequences, where at least one of the polynucleotides has a sequence of any of SEQ ID NOS:1-1079. By plurality is meant at least 2, usually at least 3 and can include up to all of SEQ ID NOS:1-1079. The length and number of polynucleotides in the

library will vary with the nature of the library, *e.g.*, if the library is an oligonucleotide array, a cDNA array, a computer database of the sequence information, etc.

Where the library is an electronic library, the nucleic acid sequence information can be present in a variety of media. "Media" refers to a manufacture, other than an isolated nucleic acid molecule, that contains the sequence information of the present invention. Such a manufacture provides the genome sequence or a subset thereof in a form that can be examined by means not directly applicable to the sequence as it exists in a nucleic acid. For example, the nucleotide sequence of the present invention, *e.g.* the nucleic acid sequences of any of the polynucleotides of SEQ ID NOS:1-1079, can be recorded on computer readable media, *e.g.* any medium that can be read and accessed directly by a computer. Such media include, but are not limited to: magnetic storage media, such as a floppy disc, a hard disc storage medium, and a magnetic tape; optical storage media such as CD-ROM; electrical storage media such as RAM and ROM; and hybrids of these categories such as magnetic/optical storage media. One of skill in the art can readily appreciate how any of the presently known computer readable mediums can be used to create a manufacture comprising a recording of the present sequence information. "Recorded" refers to a process for storing information on computer readable medium, using any such methods as known in the art. Any convenient data storage structure can be chosen, based on the means used to access the stored information. A variety of data processor programs and formats can be used for storage, *e.g.* word processing text file, database format, *etc.* In addition to the sequence information, electronic versions of the libraries of the invention can be provided in conjunction or connection with other computer-readable information and/or other types of computer-readable files (*e.g.*, searchable files, executable files, *etc*, including, but not limited to, for example, search program software, *etc.*).

By providing the nucleotide sequence in computer readable form, the information can be accessed for a variety of purposes. Computer software to access sequence information is publicly available. For example, the gapped BLAST (Altschul *et al. Nucleic Acids Res.* (1997) *25*:3389-3402) and BLAZE (Brutlag *et al. Comp. Chem.* (1993) 17:203) search algorithms on a Sybase system can be used to identify open reading frames (ORFs) within the genome that contain homology to ORFs from other organisms.

As used herein, "a computer-based system" refers to the hardware means, software means, and data storage means used to analyze the nucleotide sequence information of the present invention. The minimum hardware of the computer-based systems of the present invention comprises a central processing unit (CPU), input means, output means, and data storage means. A skilled artisan can readily appreciate that any one of the currently available computer-based system are suitable for use in the present invention. The data storage means can comprise any manufacture comprising a

recording of the present sequence information as described above, or a memory access means that can access such a manufacture.

"Search means" refers to one or more programs implemented on the computer-based system, to compare a target sequence or target structural motif, or expression levels of a polynucleotide in a sample, with the stored sequence information. Search means can be used to identify fragments or regions of the genome that match a particular target sequence or target motif. A variety of known algorithms are publicly known and commercially available, *e.g.* MacPattern (EMBL), BLASTN and BLASTX (NCBI). A "target sequence" can be any polynucleotide or amino acid sequence of six or more contiguous nucleotides or two or more amino acids, preferably from about 10 to 100 amino acids or from about 30 to 300 nt A variety of comparing means can be used to accomplish comparison of sequence information from a sample (e.g., to analyze target sequences, target motifs, or relative expression levels) with the data storage means. A skilled artisan can readily recognize that any one of the publicly available homology search programs can be used as the search means for the computer based systems of the present invention to accomplish comparison of target sequences and motifs. Computer programs to analyze expression levels in a sample and in controls are also known in the art.

A "target structural motif," or "target motif," refers to any rationally selected sequence or combination of sequences in which the sequence(s) are chosen based on a three-dimensional configuration that is formed upon the folding of the target motif, or on consensus sequences of regulatory or active sites. There are a variety of target motifs known in the art. Protein target motifs include, but arc not limited to, enzyme active sites and signal sequences. Nucleic acid target motifs include, but are not limited to, hairpin structures, promoter sequences and other expression elements such as binding sites for transcription factors.

A variety of structural formats for the input and output means can be used to input and output the information in the computer-based systems of the present invention. One format for an output means ranks the relative expression levels of different polynucleotides. Such presentation provides a skilled artisan with a ranking of relative expression levels to determine a gene expression profile..

As discussed above, the "library" of the invention also encompasses biochemical libraries of the polynucleotides of SEQ ID NOS:1-1079 , *e.g.*, collections of nucleic acids representing the provided polynucleotides. The biochemical libraries can take a variety of forms, *e.g.*, a solution of cDNAs, a pattern of probe nucleic acids stably associated with a surface of a solid support (*i.e.*, an array) and the like. Of particular interest are nucleic acid arrays in which one or more of SEQ ID NOS:1-1079 is represented on the array. By array is meant a an article of manufacture that has at least a substrate with at least two distinct nucleic acid targets on one of its surfaces, where the number of distinct nucleic acids can be considerably higher, typically being at least 10 nt, usually at

least 20 nt and often at least 25 nt. A variety of different array formats have been developed and are known to those of skill in the art. The arrays of the subject invention find use in a variety of applications, including gene expression analysis, drug screening, mutation analysis and the like, as disclosed in the above-listed exemplary patent documents.

In addition to the above nucleic acid libraries, analogous libraries of polypeptides are also provided, where the where the polypeptides of the library will represent at least a portion of the polypeptides encoded by SEQ ID NOS:1-1079.

Utilities

Use of Polynucleotide Probes in Mapping, and in Tissue Profiling

Polynucleotide probes, generally comprising at least 12 contiguous nt of a polynucleotide as shown in the Sequence Listing, are used for a variety of purposes, such as chromosome mapping of the polynucleotide and detection of transcription levels. Additional disclosure about preferred regions of the disclosed polynucleotide sequences is found in the Examples. A probe that hybridizes specifically to a polynucleotide disclosed herein should provide a detection signal at least 5-, 10-, or 20-fold higher than the background hybridization provided with other unrelated sequences.

Detection of Expression Levels. Nucleotide probes are used to detect expression of a gene corresponding to the provided polynucleotide. In Northern blots, mRNA is separated electrophoretically and contacted with a probe. A probe is detected as hybridizing to an mRNA species of a particular size. The amount of hybridization is quantitated to determine relative amounts of expression, for example under a particular condition. Probes are used for in situ hybridization to cells to detect expression. Probes can also be used *in vivo* for diagnostic detection of hybridizing sequences. Probes are typically labeled with a radioactive isotope. Other types of detectable labels can be used such as chromophores, fluors, and enzymes. Other examples of nucleotide hybridization assays are described in WO92/02526 and USPN 5,124,246.

Alternatively, the Polymerase Chain Reaction (PCR) is another means for detecting small amounts of target nucleic acids (see, *e.g.*, Mullis *et al.*, *Meth. Enzymol.* (1987) *155*:335; USPN 4,683,195; and USPN 4,683,202). Two primer polynucleotides nucleotides that hybridize with the target nucleic acids are used to prime the reaction. The primers can be composed of sequence within or 3' and 5' to the polynucleotides of the Sequence Listing. Alternatively, if the primers are 3' and 5' to these polynucleotides, they need not hybridize to them or the complements. After amplification of the target with a thermostable polymerase, the amplified target nucleic acids can be detected by methods known in the art, e.g., Southern blot. mRNA or cDNA can also be detected by traditional blotting techniques (e.g., Southern blot, Northern blot, etc.) described in Sambrook *et al.*, "Molecular Cloning: A Laboratory Manual" (New York, Cold Spring Harbor Laboratory, 1989) (e.g., without PCR amplification). In general, mRNA or cDNA generated from mRNA using a polymerase enzyme

can be purified and separated using gel electrophoresis. and transferred to a solid support, such as nitrocellulose. The solid support is exposed to a labeled probe, washed to remove any unhybridized probe, and duplexes containing the labeled probe are detected.

Mapping. Polynucleotides of the present invention can be used to identify a chromosome on which the corresponding gene resides. Such mapping can be useful in identifying the function of the polynucleotide-related gene by its proximity to other genes with known function. Function can also be assigned to the polynucleotide-related gene when particular syndromes or diseases map to the same chromosome. For example, use of polynucleotide probes in identification and quantification of nucleic acid sequence aberrations is described in USPN 5,783,387. An exemplary mapping method is fluorescence in situ hybridization (FISH), which facilitates comparative genomic hybridization to allow total genome assessment of changes in relative copy number of DNA sequences (see, e.g., Valdes *et al.*, *Methods in Molecular Biology* (1997) *68*:1). Polynucleotides can also be mapped to particular chromosomes using, for example. radiation hybrids or chromosome-specific hybrid panels. See Leach *et al.*, *Advances in Genetics*, (1995) *33*:63-99; Walter *et al.*, *Nature Genetics* (1994) *7*:22; Walter and Goodfellow, *Trends in Genetics* (1992) *9*:352. Panels for radiation hybrid mapping are available from Research Genetics, Inc., Huntsville, Alabama, USA. Databases for markers using various panels are available via the world wide web at http:/F/shgc-www.stanford.edu; and http://www-genome.wi.mit.edu/cgi-bin/contig/rhmapper.pl. The statistical program RHMAP can be used to construct a map based on the data from radiation hybridization with a measure of the relative likelihood of one order versus another. RHMAP is available via the world wide web at http://www.sph.umich.edu/group/statgen/software. In addition, commercial programs are available for identifying regions of chromosomes commonly associated with disease, such as cancer.

Tissue Typing or Profiling. Expression of specific mRNA corresponding to the provided polynucleotides can vary in different cell types and can be tissue-specific. This variation of mRNA levels in different cell types can be exploited with nucleic acid probe assays to determine tissue types. For example, PCR, branched DNA probe assays, or blotting techniques utilizing nucleic acid probes substantially identical or complementary to polynucleotides listed in the Sequence Listing can determine the presence or absence of the corresponding cDNA or mRNA.

Tissue typing can be used to identify the developmental organ or tissue source of a metastatic lesion by identifying the expression of a particular marker of that organ or tissue. If a polynucleotide is expressed only in a specific tissue type, and a metastatic lesion is found to express that polynucleotide, then the developmental source of the lesion has been identified. Expression of a particular polynucleotide can be assayed by detection of either the corresponding mRNA or the protein product. As would be readily apparent to any forensic scientist, the sequences disclosed herein are useful in differentiating human tissue from non-human tissue. In particular, these

sequences are useful to differentiate human tissue from bird, reptile, and amphibian tissue, for example.

Use of Polymorphisms. A polynucleotide of the invention can be used in forensics, genetic analysis, mapping, and diagnostic applications where the corresponding region of a gene is polymorphic in the human population. Any means for detecting a polymorphism in a gene can be used, including, but not limited to electrophoresis of protein polymorphic variants, differential sensitivity to restriction enzyme cleavage, and hybridization to allele-specific probes.

Antibody Production

Expression products of a polynucleotide of the invention, as well as the corresponding mRNA, cDNA, or complete gene, can be prepared and used for raising antibodies for experimental, diagnostic, and therapeutic purposes. For polynucleotides to which a corresponding gene has not been assigned, this provides an additional method of identifying the corresponding gene. The polynucleotide or related cDNA is expressed as described above, and antibodies are prepared. These antibodies are specific to an epitope on the polypeptide encoded by the polynucleotide, and can precipitate or bind to the corresponding native protein in a cell or tissue preparation or in a cell-free extract of an in vitro expression system.

Methods for production of antibodies that specifically bind a selected antigen are well known in the art. Immunogens for raising antibodies can be prepared by mixing a polypeptide encoded by a polynucleotide of the invention with an adjuvant, and/or by making fusion proteins with larger immunogenic proteins. Polypeptides can also be covalently linked to other larger immunogenic proteins, such as keyhole limpet hemocyanin. Immunogens are typically administered intradermally, subcutaneously, or intramuscularly to experimental animals such as rabbits, sheep, and mice, to generate antibodies. Monoclonal antibodies can be Monoclonal antibodies can be generated by isolating spleen cells and fusing myeloma cells to form hybridomas. Alternatively, the selected polynucleotide is administered directly, such as by intramuscular injection, and expressed in vivo. The expressed protein generates a variety of protein-specific immune responses, including production of antibodies, comparable to administration of the protein.

Preparations of polyclonal and monoclonal antibodies specific for polypeptides encoded by a selected polynucleotide are made using standard methods known in the art. The antibodies specifically bind to epitopes present in the polypeptides encoded by polynucleotides disclosed in the Sequence Listing. Typically, at least 6, 8, 10, or 12 contiguous amino acids are required to form an epitope. Epitopes that involve non-contiguous amino acids may require a longer polypeptide, e.g., at least 15, 25, or 50 amino acids. Antibodies that specifically bind to human polypeptides encoded by the provided polypeptides should provide a detection signal at least 5-, 10-, or 20-fold higher than a detection signal provided with other proteins when used in Western blots or other immunochemical

assays. Preferably, antibodies that specifically polypeptides of the invention do not bind to other proteins in immunochemical assays at detectable levels and can immunoprecipitate the specific polypeptide from solution.

The invention also contemplates naturally occurring antibodies specific for a polypeptide of the invention. For example, serum antibodies to a polypeptide of the invention in a human population can be purified by methods well known in the art, e.g., by passing antiserum over a column to which the corresponding selected polypeptide or fusion protein is bound. The bound antibodies can then be eluted from the column, for example using a buffer with a high salt concentration.

In addition to the antibodies discussed above, the invention also contemplates genetically engineered antibodies, antibody derivatives (e.g., single chain antibodies, antibody fragments (e.g., Fab, etc.)), according to methods well known in the art.

<u>Polynucleotides or Arrays for Diagnostics</u>

Polynucleotide arrays provide a high throughput technique that can assay a large number of polynucleotide sequences in a sample. This technology can be used as a diagnostic and as a tool to test for differential expression, e.g., to determine function of an encoded protein. Arrays can be created by spotting polynucleotide probes onto a substrate (*e.g.*, glass, nitrocelllose, *etc.*) in a two-dimensional matrix or array having bound probes. The probes can be bound to the substrate by either covalent bonds or by non-specific interactions, such as hydrophobic interactions. Samples of polynucleotides can be detectably labeled (*e.g.*, using radioactive or fluorescent labels) and then hybridized to the probes. Double stranded polynucleotides, comprising the labeled sample polynucleotides bound to probe polynucleotides, can be detected once the unbound portion of the sample is washed away. Techniques for constructing arrays and methods of using these arrays are described in EP 799 897; WO 97/29212; WO 97/27317; EP 785 280; WO 97/02357; USPN 5,593,839; USPN 5,578,832; EP 728 520; USPN 5,599,695; EP 721 016; USPN 5,556,752; WO 95/22058; and USPN 5,631,734. Arrays can be used to, for example, examine differential expression of genes and can be used to determine gene function. For example, arrays can be used to detect differential expression of a polynucleotide between a test cell and control cell (*e.g.*, cancer cells and normal cells). For example, high expression of a particular message in a cancer cell, which is not observed in a corresponding normal cell, can indicate a cancer specific gene product. Exemplary uses of arrays are further described in, for example, Pappalarado *et al.*, *Sem. Radiation Oncol.* (1998) *8*:217; and Ramsay *Nature Biotechnol.* (1998) *16*:40.

<u>Differential Expression in Diagnosis</u>

The polynucleotides of the invention can also be used to detect differences in expression levels between two cells, *e.g.*, as a method to identify abnormal or diseased tissue in a human. For

polynucleotides corresponding to profiles of protein families, the choice of tissue can be selected according to the putative biological function. In general, the expression of a gene corresponding to a specific polynucleotide is compared between a first tissue that is suspected of being diseased and a second, normal tissue of the human. The tissue suspected of being abnormal or diseased can be derived from a different tissue type of the human, but preferably it is derived from the same tissue type; for example an intestinal polyp or other abnormal growth should be compared with normal intestinal tissue. The normal tissue can be the same tissue as that of the test sample, or any normal tissue of the patient, especially those that express the polynucleotide-related gene of interest (*e.g.*, brain, thymus, testis, heart, prostate, placenta, spleen, small intestine, skeletal muscle, pancreas, and the mucosal lining of the colon). A difference between the polynucleotide-related gene, mRNA, or protein in the two tissues which are compared, for example in molecular weight, amino acid or nucleotide sequence, or relative abundance, indicates a change in the gene, or a gene which regulates it, in the tissue of the human that was suspected of being diseased. Examples of detection of differential expression and its use in diagnosis of cancer are described in USPNs 5,688,641 and 5,677,125.

A genetic predisposition to disease in a human can also be detected by comparing expression levels of an mRNA or protein corresponding to a polynucleotide of the invention in a fetal tissue with levels associated in normal fetal tissue. Fetal tissues that are used for this purpose include, but are not limited to, amniotic fluid, chorionic villi, blood, and the blastomere of an in vitro-fertilized embryo. The comparable normal polynucleotide-related gene is obtained from any tissue. The mRNA or protein is obtained from a normal tissue of a human in which the polynucleotide-related gene is expressed. Differences such as alterations in the nucleotide sequence or size of the same product of the fetal polynucleotide-related gene or mRNA, or alterations in the molecular weight, amino acid sequence, or relative abundance of fetal protein, can indicate a germline mutation in the polynucleotide-related gene of the fetus, which indicates a genetic predisposition to disease. In general, diagnostic, prognostic, and other methods of the invention based on differential expression involve detection of a level or amount of a gene product, particularly a differentially expressed gene product, in a test sample obtained from a patient suspected of having or being susceptible to a disease (*e.g.*, breast cancer, lung cancer, colon cancer and/or metastatic forms thereof), and comparing the detected levels to those levels found in normal cells (*e.g.*, cells substantially unaffected by cancer) and/or other control cells (*e.g.*, to differentiate a cancerous cell from a cell affected by dysplasia). Furthermore, the severity of the disease can be assessed by comparing the detected levels of a differentially expressed gene product with those levels detected in samples representing the levels of differentially gene product associated with varying degrees of severity of disease. It should be noted

that use of the term "diagnostic" herein is not necessarily meant to exclude "prognostic" or "prognosis," but rather is used as a matter of convenience.

The term "differentially expressed gene" is generally intended to encompass a polynucleotide that can, for example, include an open reading frame encoding a gene product (*e.g.*, a polypeptide), and/or introns of such genes and adjacent 5' and 3' non-coding nucleotide sequences involved in the regulation of expression, up to about 20 kb beyond the coding region, but possibly further in either direction. The gene can be introduced into an appropriate vector for extrachromosomal maintenance or for integration into a host genome. In general, a difference in expression level associated with a decrease in expression level of at least about 25%, usually at least about 50% to 75%, more usually at least about 90% or more is indicative of a differentially expressed gene of interest, *i.e.*, a gene that is underexpressed or down-regulated in the test sample relative to a control sample. Furthermore, a difference in expression level associated with an increase in expression of at least about 25%, usually at least about 50% to 75%, more usually at least about 90% and can be at least about 1 ½-fold, usually at least about 2-fold to about 10-fold, and can be about 100-fold to about 1,000-fold increase relative to a control sample is indicative of a differentially expressed gene of interest, *i.e.*, an overexpressed or up-regulated gene.

"Differentially expressed polynucleotide" as used herein means a nucleic acid molecule (RNA or DNA) comprising a sequence that represents a differentially expressed gene, *e.g.*, the differentially expressed polynucleotide comprises a sequence (*e.g.*, an open reading frame encoding a gene product) that uniquely identifies a differentially expressed gene so that detection of the differentially expressed polynucleotide in a sample is correlated with the presence of a differentially expressed gene in a sample. "Differentially expressed polynucleotides" is also meant to encompass fragments of the disclosed polynucleotides, *e.g.*, fragments retaining biological activity, as well as nucleic acids homologous, substantially similar, or substantially identical (*e.g.*, having about 90% sequence identity) to the disclosed polynucleotides.

"Diagnosis" as used herein generally includes determination of a subject's susceptibility to a disease or disorder, determination as to whether a subject is presently affected by a disease or disorder, as well as to the prognosis of a subject affected by a disease or disorder (*e.g.*, identification of pre-metastatic or metastatic cancerous states, stages of cancer, or responsiveness of cancer to therapy). The present invention particularly encompasses diagnosis of subjects in the context of breast cancer (*e.g.*, carcinoma in situ (*e.g.*, ductal carcinoma in situ), estrogen receptor (ER)-positive breast cancer, ER-negative breast cancer, or other forms and/or stages of breast cancer), lung cancer (*e.g.*, small cell carcinoma, non-small cell carcinoma, mesothelioma, and other forms and/or stages of lung cancer), and colon cancer (*e.g.*, adenomatous polyp, colorectal carcinoma, and other forms and/or stages of colon cancer).

"Sample" or "biological sample" as used throughout here are generally meant to refer to samples of biological fluids or tissues, particularly samples obtained from tissues, especially from cells of the type associated with the disease for which the diagnostic application is designed (*e.g.*, ductal adenocarcinoma), and the like. "Samples" is also meant to encompass derivatives and fractions of such samples (*e.g.*, cell lysates). Where the sample is solid tissue, the cells of the tissue can be dissociated or tissue sections can be analyzed.

Methods of the subject invention useful in diagnosis or prognosis typically involve comparison of the abundance of a selected differentially expressed gene product in a sample of interest with that of a control to determine any relative differences in the expression of the gene product, where the difference can be measured qualitatively and/or quantitatively. Quantitation can be accomplished, for example, by comparing the level of expression product detected in the sample with the amounts of product present in a standard curve. A comparison can be made visually; by using a technique such as densitometry, with or without computerized assistance; by preparing a representative library of cDNA clones of mRNA isolated from a test sample, sequencing the clones in the library to determine that number of cDNA clones corresponding to the same gene product, and analyzing the number of clones corresponding to that same gene product relative to the number of clones of the same gene product in a control sample; or by using an array to detect relative levels of hybridization to a selected sequence or set of sequences, and comparing the hybridization pattern to that of a control. The differences in expression are then correlated with the presence or absence of an abnormal expression pattern. A variety of different methods for determining the nucleic acid abundance in a sample are known to those of skill in the art (see, e.g., WO 97/27317).

In general, diagnostic assays of the invention involve detection of a gene product of a the polynucleotide sequence (*e.g.*, mRNA or polypeptide) that corresponds to a sequence of SEQ ID NOS:1-1079 The patient from whom the sample is obtained can be apparently healthy, susceptible to disease (*e.g.*, as determined by family history or exposure to certain environmental factors), or can already be identified as having a condition in which altered expression of a gene product of the invention is implicated.

Diagnosis can be determined based on detected gene product expression levels of a gene product encoded by at least one, preferably at least two or more, at least 3 or more, or at least 4 or more of the polynucleotides having a sequence set forth in SEQ ID NOS:1-1079, and can involve detection of expression of genes corresponding to all of SEQ ID NOS:1-1079 and/or additional sequences that can serve as additional diagnostic markers and/or reference sequences. Where the diagnostic method is designed to detect the presence or susceptibility of a patient to cancer, the assay preferably involves detection of a gene product encoded by a gene corresponding to a polynucleotide that is differentially expressed in cancer. Examples of such differentially expressed polynucleotides

are described in the Examples below. Given the provided polynucle tides and information regarding their relative expression levels provided herein, assays using such polynucleotides and detection of their expression levels in diagnosis and prognosis will be readily apparent to the ordinarily skilled artisan.

Any of a variety of detectable labels can be used in connection with the various embodiments of the diagnostic methods of the invention. Suitable detectable labels include fluorochromes,(*e.g.* fluorescein isothiocyanate (FITC), rhodamine, Texas Red, phycoerythrin, allophycocyanin, 6-carboxyfluorescein (6-FAM), 2',7'-dimethoxy-4',5'-dichloro-6-carboxyfluorescein, 6-carboxy-X-rhodamine (ROX), 6-carboxy-2',4',7',4,7-hexachlorofluorescein (HEX), 5-carboxyfluorescein (5-FAM) or N,N,N',N'-tetramethyl-6-carboxyrhodamine (TAMRA)), radioactive labels, (*e.g.* ^{32}P, ^{35}S, ^{3}H, *etc.*), and the like. The detectable label can involve a two stage systems (*e.g.*, biotin-avidin, hapten-anti-hapten antibody, *etc.*)

Reagents specific for the polynucleotides and polypeptides of the invention, such as antibodies and nucleotide probes, can be supplied in a kit for detecting the presence of an expression product in a biological sample. The kit can also contain buffers or labeling components, as well as instructions for using the reagents to detect and quantify expression products in the biological sample. Exemplary embodiments of the diagnostic methods of the invention are described below in more detail.

<u>Polypeptide detection in diagnosis.</u> In one embodiment, the test sample is assayed for the level of a differentially expressed polypeptide. Diagnosis can be accomplished using any of a number of methods to determine the absence or presence or altered amounts of the differentially expressed polypeptide in the test sample. For example, detection can utilize staining of cells or histological sections with labeled antibodies, performed in accordance with conventional methods. Cells can be permeabilized to stain cytoplasmic molecules. In general, antibodies that specifically bind a differentially expressed polypeptide of the invention are added to a sample, and incubated for a period of time sufficient to allow binding to the epitope, usually at least about 10 minutes. The antibody can be detectably labeled for direct detection (*e.g.*, using radioisotopes, enzymes, fluorescers, chemiluminescers, and the like), or can be used in conjunction with a second stage antibody or reagent to detect binding (*e.g.*, biotin with horseradish peroxidase-conjugated avidin, a secondary antibody conjugated to a fluorescent compound, *e.g.* fluorescein, rhodamine, Texas red, *etc.*). The absence or presence of antibody binding can be determined by various methods, including flow cytometry of dissociated cells, microscopy, radiography, scintillation counting, *etc.* Any suitable alternative methods can of qualitative or quantitative detection of levels or amounts of differentially expressed polypeptide can be used, for example ELISA, western blot, immunoprecipitation, radioimmunoassay, etc.

<u>mRNA detection.</u> The diagnostic methods of the invention can also or alternatively involve detection of mRNA encoded by a gene corresponding to a differentially expressed polynucleotides of the invention. Any suitable qualitative or quantitative methods known in the art for detecting specific mRNAs can be used. mRNA can be detected by, for example, *in situ* hybridization in tissue sections, by reverse transcriptase-PCR, or in Northern blots containing poly A+ mRNA. One of skill in the art can readily use these methods to determine differences in the size or amount of mRNA transcripts between two samples. mRNA expression levels in a sample can also be determined by generation of a library of expressed sequence tags (ESTs) from the sample, where the EST library is representative of sequences present in the sample (Adams, et al., (1991) *Science* 252:1651). Enumeration of the relative representation of ESTs within the library can be used to approximate the relative representation of the gene transcript within the starting sample. The results of EST analysis of a test sample can then be compared to EST analysis of a reference sample to determine the relative expression levels of a selected polynucleotide, particularly a polynucleotide corresponding to one or more of the differentially expressed genes described herein. Alternatively, gene expression in a test sample can be performed using serial analysis of gene expression (SAGE) methodology (e.g., Velculescu et al., *Science* (1995) *270*:484) or differential display (DD) methodology (see, *e.g.*, U.S. 5,776,683; and U.S. 5,807,680).

Alternatively, gene expression can be analyzed using hybridization analysis. Oligonucleotides or cDNA can be used to selectively identify or capture DNA or RNA of specific sequence composition, and the amount of RNA or cDNA hybridized to a known capture sequence determined qualitatively or quantitatively, to provide information about the relative representation of a particular message within the pool of cellular messages in a sample. Hybridization analysis can be designed to allow for concurrent screening of the relative expression of hundreds to thousands of genes by using, for example, array-based technologies having high density formats, including filters, microscope slides, or microchips, or solution-based technologies that use spectroscopic analysis (*e.g.*, mass spectrometry). One exemplary use of arrays in the diagnostic methods of the invention is described below in more detail.

<u>Use of a single gene in diagnostic applications.</u> The diagnostic methods of the invention can focus on the expression of a single differentially expressed gene. For example, the diagnostic method can involve detecting a differentially expressed gene, or a polymorphism of such a gene (*e.g.*, a polymorphism in an coding region or control region), that is associated with disease. Disease-associated polymorphisms can include deletion or truncation of the gene, mutations that alter expression level and/or affect activity of the encoded protein, *etc.*

A number of methods are available for analyzing nucleic acids for the presence of a specific sequence, *e.g.* a disease associated polymorphism. Where large amounts of DNA are available,

genomic DNA is us d directly. Alternatively, the region of interest is cloned into a suitable vector and grown in sufficient quantity for analysis. Cells that express a differentially expressed gene can be used as a source of mRNA, which can be assayed directly or reverse transcribed into cDNA for analysis. The nucleic acid can be amplified by conventional techniques, such as the polymerase chain reaction (PCR), to provide sufficient amounts for analysis, and a detectable label can be included in the amplification reaction (*e.g.*, using a detectably labeled primer or detectably labeled oligonucleotides) to facilitate detection. Alternatively, various methods are also known in the art that utilize oligonucleotide ligation as a means of detecting polymorphisms, see e.g., Riley *et al.*, *Nucl. Acids Res.* (1990) *18*:2887; and Delahunty *et al.*, *Am. J. Hum. Genet.* (1996) *58*:1239.

The amplified or cloned sample nucleic acid can be analyzed by one of a number of methods known in the art. The nucleic acid can be sequenced by dideoxy or other methods, and the sequence of bases compared to a selected sequence, *e.g.*, to a wild-type sequence. Hybridization with the polymorphic or variant sequence can also be used to determine its presence in a sample (*e.g.*, by Southern blot, dot blot, *etc.)*. The hybridization pattern of a polymorphic or variant sequence and a control sequence to an array of oligonucleotide probes immobilized on a solid support, as described in US 5,445,934, or in WO 95/35505, can also be used as a means of identifying polymorphic or variant sequences associated with disease. Single strand conformational polymorphism (SSCP) analysis, denaturing gradient gel electrophoresis (DGGE), and heteroduplex analysis in gel matrices are used to detect conformational changes created by DNA sequence variation as alterations in electrophoretic mobility. Alternatively, where a polymorphism creates or destroys a recognition site for a restriction endonuclease, the sample is digested with that endonuclease, and the products size fractionated to determine whether the fragment was digested. Fractionation is performed by gel or capillary electrophoresis, particularly acrylamide or agarose gels.

Screening for mutations in a gene can be based on the functional or antigenic characteristics of the protein. Protein truncation assays are useful in detecting deletions that can affect the biological activity of the protein. Various immunoassays designed to detect polymorphisms in proteins can be used in screening. Where many diverse genetic mutations lead to a particular disease phenotype, functional protein assays have proven to be effective screening tools. The activity of the encoded protein can be determined by comparison with the wild-type protein.

<u>Pattern matching in diagnosis using arrays.</u> In another embodiment, the diagnostic and/or prognostic methods of the invention involve detection of expression of a selected set of genes in a test sample to produce a test expression pattern (TEP). The TEP is compared to a reference expression pattern (REP), which is generated by detection of expression of the selected set of genes in a reference sample (*e.g.*, a positive or negative control sample). The selected set of genes includes at least one of the genes of the invention, which genes correspond to the polynucleotide sequences of

SEQ ID NOS:1-1079. Of particular interest is a selected set of genes that includes gene differentially expressed in the disease for which the test sample is to be screened.

"Reference sequences" or "reference polynucleotides" as used herein in the context of differential gene expression analysis and diagnosis/prognosis refers to a selected set of polynucleotides, which selected set includes at least one or more of the differentially expressed polynucleotides described herein. A plurality of reference sequences, preferably comprising positive and negative control sequences, can be included as reference sequences. Additional suitable reference sequences are found in GenBank, Unigene, and other nucleotide sequence databases (including, *e.g.*, expressed sequence tag (EST), partial, and full-length sequences).

"Reference array" means an array having reference sequences for use in hybridization with a sample, where the reference sequences include all, at least one of, or any subset of the differentially expressed polynucleotides described herein. Usually such an array will include at least 3 different reference sequences, and can include any one or all of the provided differentially expressed sequences. Arrays of interest can further comprise sequences, including polymorphisms, of other genetic sequences, particularly other sequences of interest for screening for a disease or disorder (*e.g.*, cancer, dysplasia, or other related or unrelated diseases, disorders, or conditions). The oligonucleotide sequence on the array will usually be at least about 12 nt in length, and can be of about the length of the provided sequences, or can extend into the flanking regions to generate fragments of 100 nt to 200 nt in length or more. Reference arrays can be produced according to any suitable methods known in the art. For example, methods of producing large arrays of oligonucleotides are described in U.S. 5,134,854, and U.S. 5,445,934 using light-directed synthesis techniques. Using a computer controlled system, a heterogeneous array of monomers is converted, through simultaneous coupling at a number of reaction sites, into a heterogeneous array of polymers. Alternatively, microarrays are generated by deposition of pre-synthesized oligonucleotides onto a solid substrate, for example as described in PCT published application no. WO 95/35505.

A "reference expression pattern" or "REP" as used herein refers to the relative levels of expression of a selected set of genes, particularly of differentially expressed genes, that is associated with a selected cell type, *e.g.*, a normal cell, a cancerous cell, a cell exposed to an environmental stimulus, and the like. A "test expression pattern" or "TEP" refers to relative levels of expression of a selected set of genes, particularly of differentially expressed genes, in a test sample (*e.g.*, a cell of unknown or suspected disease state, from which mRNA is isolated).

REPs can be generated in a variety of ways according to methods well known in the art. For example, REPs can be generated by hybridizing a control sample to an array having a selected set of polynucleotides (particularly a selected set of differentially expressed polynucleotides), acquiring the hybridization data from the array, and storing the data in a format that allows for ready comparison of

the REP with a TEP. Alternatively, all expressed sequences in a control sampl can be isolated and sequenced, *e.g.*, by isolating mRNA from a control sample, converting the mRNA into cDNA, and sequencing th cDNA. The resulting sequence information roughly or precisely reflects the identity and relative number of expressed sequences in the sample. The sequence information can then be stored in a format (*e.g.*, a computer-readable format) that allows for ready comparison of the REP with a TEP. The REP can be normalized prior to or after data storage, and/or can be processed to selectively remove sequences of expressed genes that are of less interest or that might complicate analysis (*e.g.*, some or all of the sequences associated with housekeeping genes can be eliminated from REP data).

TEPs can be generated in a manner similar to REPs, *e.g.*, by hybridizing a test sample to an array having a selected set of polynucleotides, particularly a selected set of differentially expressed polynucleotides, acquiring the hybridization data from the array, and storing the data in a format that allows for ready comparison of the TEP with a REP. The REP and TEP to be used in a comparison can be generated simultaneously, or the TEP can be compared to previously generated and stored REPs.

In one embodiment of the invention, comparison of a TEP with a REP involves hybridizing a test sample with a reference array, where the reference array has one or more reference sequences for use in hybridization with a sample. The reference sequences include all, at least one of, or any subset of the differentially expressed polynucleotides described herein. Hybridization data for the test sample is acquired, the data normalized, and the produced TEP compared with a REP generated using an array having the same or similar selected set of differentially expressed polynucleotides. Probes that correspond to sequences differentially expressed between the two samples will show decreased or increased hybridization efficiency for one of the samples relative to the other.

Methods for collection of data from hybridization of samples with a reference arrays are well known in the art. For example, the polynucleotides of the reference and test samples can be generated using a detectable fluorescent label, and hybridization of the polynucleotides in the samples detected by scanning the microarrays for the presence of the detectable label using, for example, a microscope and light source for directing light at a substrate. A photon counter detects fluorescence from the substrate, while an x-y translation stage varies the location of the substrate. A confocal detection device that can be used in the subject methods is described in USPN 5,631,734. A scanning laser microscope is described in Shalon et al., *Genome Res.* (1996) *6*:639. A scan, using the appropriate excitation line, is performed for each fluorophore used. The digital images generated from the scan are then combined for subsequent analysis. For any particular array element, the ratio of the fluorescent signal from one sample (*e.g.*, a test sample) is compared to the fluorescent signal from another sample (*e.g.*, a reference sample), and the relative signal intensity determined.

Methods for analyzing the data collected from hybridization to arrays are well known in the art. For example, where detection of hybridization involves a fluorescent label, data analysis can include the steps of determining fluorescent intensity as a function of substrate position from the data collected, removing outliers, *i.e.* data deviating from a predetermined statistical distribution, and calculating the relative binding affinity of the targets from the remaining data. The resulting data can be displayed as an image with the intensity in each region varying according to the binding affinity between targets and probes.

In general, the test sample is classified as having a gene expression profile corresponding to that associated with a disease or non-disease state by comparing the TEP generated from the test sample to one or more REPs generated from reference samples (*e.g.*, from samples associated with cancer or specific stages of cancer, dysplasia, samples affected by a disease other than cancer, normal samples, *etc.*). The criteria for a match or a substantial match between a TEP and a REP include expression of the same or substantially the same set of reference genes, as well as expression of these reference genes at substantially the same levels (*e.g.*, no significant difference between the samples for a signal associated with a selected reference sequence after normalization of the samples, or at least no greater than about 25% to about 40% difference in signal strength for a given reference sequence. In general, a pattern match between a TEP and a REP includes a match in expression, preferably a match in qualitative or quantitative expression level, of at least one of, all or any subset of the differentially expressed genes of the invention.

Pattern matching can be performed manually, or can be performed using a computer program. Methods for preparation of substrate matrices (*e.g.*, arrays), design of oligonucleotides for use with such matrices, labeling of probes, hybridization conditions, scanning of hybridized matrices, and analysis of patterns generated, including comparison analysis, are described in, for example, U.S. 5,800,992.

Diagnosis, Prognosis and Management of Cancer

The polynucleotides of the invention and their gene products are of particular interest as genetic or biochemical markers (e.g., in blood or tissues) that will detect the earliest changes along the carcinogenesis pathway and/or to monitor the efficacy of various therapies and preventive interventions. For example, the level of expression of certain polynucleotides can be indicative of a poorer prognosis, and therefore warrant more aggressive chemo- or radio-therapy for a patient or vice versa. The correlation of novel surrogate tumor specific features with response to treatment and outcome in patients can define prognostic indicators that allow the design of tailored therapy based on the molecular profile of the tumor. These therapies include antibody targeting and gene therapy. Determining expression of certain polynucleotides and comparison of a patients profile with known expression in normal tissue and variants of the disease allows a determination of the best possible

treatment for a patient, both in terms of specificity of treatment and in terms of comfort level of the patient. Surrogate tumor markers, such as polynucleotide expression, can also be used to better classify, and thus diagnose and treat, different forms and disease states of cancer. Two classifications widely used in oncology that can benefit from identification of the expression levels of the polynucleotides of the invention are staging of the cancerous disorder, and grading the nature of the cancerous tissue.

The polynucleotides of the invention can be useful to monitor patients having or susceptible to cancer to detect potentially malignant events at a molecular level before they are detectable at a gross morphological level. Furthermore, a polynucleotide of the invention identified as important for one type of cancer can also have implications for development or risk of development of other types of cancer, e.g., where a polynucleotide is differentially expressed across various cancer types. Thus, for example, expression of a polynucleotide that has clinical implications for metastatic colon cancer can also have clinical implications for stomach cancer or endometrial cancer.

Staging. Staging is a process used by physicians to describe how advanced the cancerous state is in a patient. Staging assists the physician in determining a prognosis, planning treatment and evaluating the results of such treatment. Staging systems vary with the types of cancer, but generally involve the following "TNM" system: the type of tumor, indicated by T; whether the cancer has metastasized to nearby lymph nodes, indicated by N; and whether the cancer has metastasized to more distant parts of the body, indicated by M. Generally, if a cancer is only detectable in the area of the primary lesion without having spread to any lymph nodes it is called Stage I. If it has spread only to the closest lymph nodes, it is called Stage II. In Stage III, the cancer has generally spread to the lymph nodes in near proximity to the site of the primary lesion. Cancers that have spread to a distant part of the body, such as the liver, bone, brain or other site, are Stage IV, the most advanced stage.

The polynucleotides of the invention can facilitate fine-tuning of the staging process by identifying markers for the aggresivity of a cancer, *e.g.* the metastatic potential, as well as the presence in different areas of the body. Thus, a Stage II cancer with a polynucleotide signifying a high metastatic potential cancer can be used to change a borderline Stage II tumor to a Stage III tumor, justifying more aggressive therapy. Conversely, the presence of a polynucleotide signifying a lower metastatic potential allows more conservative staging of a tumor.

Grading of cancers. Grade is a term used to describe how closely a tumor resembles normal tissue of its same type. The microscopic appearance of a tumor is used to identify tumor grade based on parameters such as cell morphology, cellular organization, and other markers of differentiation. As a general rule, the grade of a tumor corresponds to its rate of growth or aggressiveness, with undifferentiated or high-grade tumors being more aggressive than well differentiated or low-grade tumors. The following guidelines are generally used for grading tumors: 1) GX Grade cannot be

assess d; 2) G1 Well differentiated; G2 Moderately well differentiated; 3) G3 Poorly differentiated; 4) G4 Undifferentiated. Th polynucleotides of the invention can be especially valuabl in determining the grade of the tumor, as they not only can aid in determining the differentiation status of the cells of a tumor, they can also identify factors other than differentiation that are valuable in determining the aggressiveness of a tumor, such as metastatic potential.

Detection of lung cancer. The polynucleotides of the invention can be used to detect lung cancer in a subject. Although there are more than a dozen different kinds of lung cancer, the two main types of lung cancer are small cell and nonsmall cell, which encompass about 90% of all lung cancer cases. Small cell carcinoma (also called oat cell carcinoma) usually starts in one of the larger bronchial tubes, grows fairly rapidly, and is likely to be large by the time of diagnosis. Nonsmall cell lung cancer (NSCLC) is made up of three general subtypes of lung cancer. Epidermoid carcinoma (also called squamous cell carcinoma) usually starts in one of the larger bronchial tubes and grows relatively slowly. The size of these tumors can range from very small to quite large. Adenocarcinoma starts growing near the outside surface of the lung and can vary in both size and growth rate. Some slowly growing adenocarcinomas are described as alveolar cell cancer. Large cell carcinoma starts near the surface of the lung, grows rapidly, and the growth is usually fairly large when diagnosed. Other less common forms of lung cancer are carcinoid, cylindroma, mucoepidermoid, and malignant mesothelioma.

The polynucleotides of the invention, e.g., polynucleotides differentially expressed in normal cells versus cancerous lung cells (e.g., tumor cells of high or low metastatic potential) or between types of cancerous lung cells (e.g., high metastatic versus low metastatic), can be used to distinguish types of lung cancer as well as identifying traits specific to a certain patient's cancer and selecting an appropriate therapy. For example, if the patient's biopsy expresses a polynucleotide that is associated with a low metastatic potential, it may justify leaving a larger portion of the patient's lung in surgery to remove the lesion. Alternatively, a smaller lesion with expression of a polynucleotide that is associated with high metastatic potential may justify a more radical removal of lung tissue and/or the surrounding lymph nodes, even if no metastasis can be identified through pathological examination.

Detection of breast cancer. The majority of breast cancers are adenocarcinomas subtypes, which can be summarized as follows: 1) ductal carcinoma in situ (DCIS), including comedocarcinoma; 2) infiltrating (or invasive) ductal carcinoma (IDC); 3) lobular carcinoma in situ (LCIS); 4) infiltrating (or invasive) lobular carcinoma (ILC); 5) inflammatory breast cancer; 6) medullary carcinoma; 7) mucinous carcinoma; 8) Paget's disease of the nipple; 9) Phyllodes tumor; and 10) tubular carcinoma;

The expression of polynucleotides of the invention can be used in the diagnosis and management of breast cancer, as well as to distinguish between types of breast cancer. Detection of breast cancer can be determined using expression levels of any of the appropriate polynucleotides of the invention, either alone or in combination. Determination of the aggressive nature and/or the metastatic potential of a breast cancer can also be determined by comparing levels of one or more polynucleotides of the invention and comparing levels of another sequence known to vary in cancerous tissue, *e.g.* ER expression. In addition, development of breast cancer can be detected by examining the ratio of expression of a differentially expressed polynucleotide to the levels of steroid hormones (*e.g.*, testosterone or estrogen) or to other hormones (*e.g.*, growth hormone, insulin). Thus expression of specific marker polynucleotides can be used to discriminate between normal and cancerous breast tissue, to discriminate between breast cancers with different cells of origin, to discriminate between breast cancers with different potential metastatic rates, etc.

Detection of colon cancer. The polynucleotides of the invention exhibiting the appropriate expression pattern can be used to detect colon cancer in a subject. Colorectal cancer is one of the most common neoplasms in humans and perhaps the most frequent form of hereditary neoplasia. Prevention and early detection are key factors in controlling and curing colorectal cancer. Colorectal cancer begins as polyps, which are small, benign growths of cells that form on the inner lining of the colon. Over a period of several years, some of these polyps accumulate additional mutations and become cancerous. Multiple familial colorectal cancer disorders have been identified, which are summarized as follows: 1) Familial adenomatous polyposis (FAP); 2) Gardner's syndrome; 3) Hereditary nonpolyposis colon cancer (HNPCC); and 4) Familial colorectal cancer in Ashkenazi Jews. The expression of appropriate polynucleotides of the invention can be used in the diagnosis, prognosis and management of colorectal cancer. Detection of colon cancer can be determined using expression levels of any of these sequences alone or in combination with the levels of expression. Determination of the aggressive nature and/or the metastatic potential of a colon cancer can be determined by comparing levels of one or more polynucleotides of the invention and comparing total levels of another sequence known to vary in cancerous tissue, *e.g.*, expression of p53, DCC ras, lor FAP (see, e.g., Fearon ER, *et al.*, *Cell* (1990) *61(5)*:759; Hamilton SR *et al.*, *Cancer* (1993) *72*:957; Bodmer W, *et al.*, *Nat Genet.* (1994) *4(3)*:217; Fearon ER, *Ann N Y Acad Sci.* (1995) *768*:101). For example, development of colon cancer can be detected by examining the ratio of any of the polynucleotides of the invention to the levels of oncogenes (*e.g.* ras) or tumor suppressor genes (*e.g.* FAP or p53). Thus expression of specific marker polynucleotides can be used to discriminate between normal and cancerous colon tissue, to discriminate between colon cancers with different cells of origin, to discriminate between colon cancers with different potential metastatic rates, etc.

Detection of prostate cancer. The polynucleotides and their corresponding genes and gene

products exhibiting the appropriate differential expression pattern can be used to detect prostate canc r in a subject. Over 95% of primary prostate cancers are adenocarcinomas. Signs and symptoms may include: frequent urination, especially at night, inability to urinate, trouble starting or holding back urination, a weak or interrupted urine flow and frequent pain or stiffness in the lower back, hips or upper thighs.

Many of the signs and symptoms of prostate cancer can be caused by a variety of other non-cancerous conditions. For example, one common cause of many of these signs and symptoms is a condition called benign prostatic hypertrophy, or BPH. In BPH, the prostate gets bigger and may block the flow or urine or interfere with sexual function. The methods and compositions of the invention can be used to distinguish between prostate cancer and such non-cancerous conditions. The methods of the invention can be used in conjunction with conventional methods of diagnosis, e.g., digital rectal exam and/or detection of the level of prostate specific antigen (PSA), a substance produced and secreted by the prostate.

Use of Polynucleotides to Screen for Peptide Analogs and Antagonists

Polypeptides encoded by the instant polynucleotides and corresponding full length genes can be used to screen peptide libraries to identify binding partners, such as receptors, from among the encoded polypeptides. Peptide libraries can be synthesized according to methods known in the art (see, e.g., USPN 5,010,175 , and WO 91/17823). Agonists or antagonists of the polypeptides if the invention can be screened using any available method known in the art, such as signal transduction, antibody binding, receptor binding, mitogenic assays, chemotaxis assays, etc. The assay conditions ideally should resemble the conditions under which the native activity is exhibited *in vivo*, that is, under physiologic pH, temperature, and ionic strength. Suitable agonists or antagonists will exhibit strong inhibition or enhancement of the native activity at concentrations that do not cause toxic side effects in the subject. Agonists or antagonists that compete for binding to the native polypeptide can require concentrations equal to or greater than the native concentration, while inhibitors capable of binding irreversibly to the polypeptide can be added in concentrations on the order of the native concentration.

Such screening and experimentation can lead to identification of a novel polypeptide binding partner, such as a receptor, encoded by a gene or a cDNA corresponding to a polynucleotide of the invention, and at least one peptide agonist or antagonist of the novel binding partner. Such agonists and antagonists can be used to modulate, enhance, or inhibit receptor function in cells to which the receptor is native, or in cells that possess the receptor as a result of genetic engineering. Further, if the novel receptor shares biologically important characteristics with a known receptor, information about agonist/antagonist binding can facilitate development of improved agonists/antagonists of the known receptor.

Pharmaceutical Compositions and Therapeutic Uses

Pharmaceutical compositions of the invention can comprise polypeptides, antibodies, or polynucleotides (including antisense nucleotides and ribozymes) of the claimed invention in a therapeutically effective amount. The term "therapeutically effective amount" as used herein refers to an amount of a therapeutic agent to treat, ameliorate, or prevent a desired disease or condition, or to exhibit a detectable therapeutic or preventative effect. The effect can be detected by, for example, chemical markers or antigen levels. Therapeutic effects also include reduction in physical symptoms, such as decreased body temperature. The precise effective amount for a subject will depend upon the subject's size and health, the nature and extent of the condition, and the therapeutics or combination of therapeutics selected for administration. Thus, it is not useful to specify an exact effective amount in advance. However, the effective amount for a given situation is determined by routine experimentation and is within the judgment of the clinician. For purposes of the present invention, an effective dose will generally be from about 0.01 mg/ kg to 50 mg/kg or 0.05 mg/kg to about 10 mg/kg of the DNA constructs in the individual to which it is administered.

A pharmaceutical composition can also contain a pharmaceutically acceptable carrier. The term "pharmaceutically acceptable carrier" refers to a carrier for administration of a therapeutic agent, such as antibodies or a polypeptide, genes, and other therapeutic agents. The term refers to any pharmaceutical carrier that does not itself induce the production of antibodies harmful to the individual receiving the composition, and which can be administered without undue toxicity. Suitable carriers can be large, slowly metabolized macromolecules such as proteins, polysaccharides, polylactic acids, polyglycolic acids, polymeric amino acids, amino acid copolymers, and inactive virus particles. Such carriers are well known to those of ordinary skill in the art. Pharmaceutically acceptable carriers in therapeutic compositions can include liquids such as water, saline, glycerol and ethanol. Auxiliary substances, such as wetting or emulsifying agents, pH buffering substances, and the like, can also be present in such vehicles. Typically, the therapeutic compositions are prepared as injectables, either as liquid solutions or suspensions; solid forms suitable for solution in, or suspension in, liquid vehicles prior to injection can also be prepared. Liposomes are included within the definition of a pharmaceutically acceptable carrier. Pharmaceutically acceptable salts can also be present in the pharmaceutical composition, e.g., mineral acid salts such as hydrochlorides, hydrobromides, phosphates, sulfates, and the like; and the salts of organic acids such as acetates, propionates, malonates, benzoates, and the like. A thorough discussion of pharmaceutically acceptable excipients is available in *Remington's Pharmaceutical Sciences* (Mack Pub. Co., N.J. 1991).

Delivery Methods. Once formulated, the compositions of the invention can be (1) administered directly to the subject (*e.g.*, as polynucleotide or polypeptides); or (2) delivered ex

vivo, to cells derived from the subject (*e.g.*, as in *ex vivo* gene therapy). Direct delivery of the compositions will generally be accomplished by parenteral injection, e.g., subcutaneously, intraperitoneally, intravenously or intramuscularly, intratumoral or to the interstitial space of a tissue. Other modes of administration include oral and pulmonary administration, suppositories, and transdermal applications, needles, and gene guns or hyposprays. Dosage treatment can be a single dose schedule or a multiple dose schedule.

Methods for the ex vivo delivery and reimplantation of transformed cells into a subject are known in the art and described in *e.g.*, International Publication No. WO 93/14778. Examples of cells useful in ex vivo applications include, for example, stem cells, particularly hematopoetic, lymph cells, macrophages, dendritic cells, or tumor cells. Generally, delivery of nucleic acids for both ex vivo and in vitro applications can be accomplished by, for example, dextran-mediated transfection, calcium phosphate precipitation, polybrene mediated transfection, protoplast fusion, electroporation, encapsulation of the polynucleotide(s) in liposomes, and direct microinjection of the DNA into nuclei, all well known in the art.

Once a gene corresponding to a polynucleotide of the invention has been found to correlate with a proliferative disorder, such as neoplasia, dysplasia, and hyperplasia, the disorder can be amenable to treatment by administration of a therapeutic agent based on the provided polynucleotide, corresponding polypeptide or other corresponding molecule (e.g., antisense, ribozyme, etc.).

The dose and the means of administration of the inventive pharmaceutical compositions are determined based on the specific qualities of the therapeutic composition, the condition, age, and weight of the patient, the progression of the disease, and other relevant factors. For example, administration of polynucleotide therapeutic compositions agents of the invention includes local or systemic administration, including injection, oral administration, particle gun or catheterized administration, and topical administration. Preferably, the therapeutic polynucleotide composition contains an expression construct comprising a promoter operably linked to a polynucleotide of at least 12, 22, 25, 30, or 35 contiguous nt of the polynucleotide disclosed herein. Various methods can be used to administer the therapeutic composition directly to a specific site in the body. For example, a small metastatic lesion is located and the therapeutic composition injected several times in several different locations within the body of tumor. Alternatively, arteries which serve a tumor are identified, and the therapeutic composition injected into such an artery, in order to deliver the composition directly into the tumor. A tumor that has a necrotic center is aspirated and the composition injected directly into the now empty center of the tumor. The antisense composition is directly administered to the surface of the tumor, for example, by topical application of the composition. X-ray imaging is used to assist in certain of the above delivery methods.

Receptor-mediated targeted delivery of therapeutic compositions containing an antisense polynucleotide, subgenomic polynucleotides, or antibodies to specific tissues can also be used. Receptor-mediated DNA delivery techniques are described in, for example, Findeis *et al.*, *Trends Biotechnol.* (1993) *11*:202; Chiou *et al.*, *Gene Therapeutics: Methods And Applications Of Direct Gene Transfer* (J.A. Wolff, ed.) (1994); Wu *et al.*, *J. Biol. Chem.* (1988) *263*:621; Wu *et al.*, *J. Biol. Chem.* (1994) *269*:542; Zenke *et al.*, *Proc. Natl. Acad. Sci. (USA)* (1990) *87*:3655; Wu *et al.*, *J. Biol. Chem.* (1991) *266*:338. Therapeutic compositions containing a polynucleotide are administered in a range of about 100 ng to about 200 mg of DNA for local administration in a gene therapy protocol. Concentration ranges of about 500 ng to about 50 mg, about 1 μg to about 2 mg, about 5 μg to about 500 μg, and about 20 μg to about 100 μg of DNA can also be used during a gene therapy protocol. Factors such as method of action (e.g., for enhancing or inhibiting levels of the encoded gene product) and efficacy of transformation and expression are considerations which will affect the dosage required for ultimate efficacy of the antisense subgenomic polynucleotides. Where greater expression is desired over a larger area of tissue, larger amounts of antisense subgenomic polynucleotides or the same amounts readministered in a successive protocol of administrations, or several administrations to different adjacent or close tissue portions of, for example, a tumor site, may be required to effect a positive therapeutic outcome. In all cases, routine experimentation in clinical trials will determine specific ranges for optimal therapeutic effect. For polynucleotide related genes encoding polypeptides or proteins with anti-inflammatory activity, suitable use, doses, and administration are described in USPN 5,654,173.

The therapeutic polynucleotides and polypeptides of the present invention can be delivered using gene delivery vehicles. The gene delivery vehicle can be of viral or non-viral origin (see generally, Jolly, *Cancer Gene Therapy* (1994) *1*:51; Kimura, *Human Gene Therapy* (1994) *5*:845; Connelly, *Human Gene Therapy* (1995) *1*:185; and Kaplitt, *Nature Genetics* (1994) *6*:148). Expression of such coding sequences can be induced using endogenous mammalian or heterologous promoters. Expression of the coding sequence can be either constitutive or regulated.

Viral-based vectors for delivery of a desired polynucleotide and expression in a desired cell are well known in the art. Exemplary viral-based vehicles include, but are not limited to, recombinant retroviruses (see, e.g., WO 90/07936; WO 94/03622; WO 93/25698; WO 93/25234; USPN 5, 219,740; WO 93/11230; WO 93/10218; USPN 4,777,127; GB Patent No. 2,200,651; EP 0 345 242; and WO 91/02805), alphavirus-based vectors (e.g., Sindbis virus vectors, Semliki forest virus (ATCC VR-67; ATCC VR-1247), Ross River virus (ATCC VR-373; ATCC VR-1246) and Venezuelan equine encephalitis virus (ATCC VR-923; ATCC VR-1250; ATCC VR 1249; ATCC VR-532), and adeno-associated virus (AAV) vectors (see, e.g., WO 94/12649, WO 93/03769; WO

93/19191; WO 94/28938; WO 95/11984 and WO 95/00655). Administration of DNA linked to killed adenovirus as described in Curiel, *Hum. Gene Ther.* (1992) *3*:147 can also be employed.

Non-viral delivery vehicles and methods can also be employed, including, but not limited to, polycationic condensed DNA linked or unlinked to killed adenovirus alone (see, e.g., Curiel, *Hum. Gene Ther.* (1992) *3*:147); ligand-linked DNA(see, e.g., Wu, *J. Biol. Chem.* (1989) *264*:16985); eukaryotic cell delivery vehicles cells (see, e.g., USPN 5,814,482; WO 95/07994; WO 96/17072; WO 95/30763; and WO 97/42338) and nucleic charge neutralization or fusion with cell membranes. Naked DNA can also be employed. Exemplary naked DNA introduction methods are described in WO 90/11092 and USPN 5,580,859. Liposomes that can act as gene delivery vehicles are described in USPN 5,422,120; WO 95/13796; WO 94/23697; WO 91/14445; and EP 0524968. Additional approaches are described in Philip, *Mol. Cell Biol.* (1994) *14*:2411, and in Woffendin, *Proc. Natl. Acad. Sci.* (1994) *91*:1581

Further non-viral delivery suitable for use includes mechanical delivery systems such as the approach described in Woffendin *et al., Proc. Natl. Acad. Sci. USA* (1994) *91*(24):11581. Moreover, the coding sequence and the product of expression of such can be delivered through deposition of photopolymerized hydrogel materials or use of ionizing radiation (see, e.g., USPN 5,206,152 and WO 92/11033). Other conventional methods for gene delivery that can be used for delivery of the coding sequence include, for example, use of hand-held gene transfer particle gun (see, e.g., USPN 5,149,655); use of ionizing radiation for activating transferred gene (see, e.g., USPN 5,206,152 and WO 92/11033).

The present invention will now be illustrated by reference to the following examples which set forth particularly advantageous embodiments. However, it should be noted that these embodiments are illustrative and are not to be construed as restricting the invention in any way.

EXAMPLES

The following examples are offered primarily for purposes of illustration. It will be readily apparent to those skilled in the art that the formulations, dosages, methods of administration, and other parameters of this invention may be further modified or substituted in various ways without departing from the spirit and scope of the invention.

Example 1: Source of Biological Materials and Overview of Novel Polynucleotides Expressed by the Biological Materials

cDNA libraries were constructed from either human colon cancer cell line Km12L4-A (Morikawa, et al., *Cancer Research* (1988) *48*:6863), KM12C (Morikawa et al. *Cancer Res.* (1988) *48*:1943-1948), or MDA-MB-231 (Brinkley et al. *Cancer Res.* (1980) *40*:3118-3129) was used to

construct a cDNA library from mRNA isolated from the cells. Sequences expressed by these cell lines were isolated and analyzed; most sequences wer about 275-300 nucleotides in length. The KM12L4-A cell line is derived from the KM12C cell line. The KM12C cell line, which is poorly metastatic (low metastatic) was established in culture from a Dukes' stage B_2 surgical specimen (Morikawa *et al. Cancer Res.* (1988) *48*:6863). The KML4-A is a highly metastatic subline derived from KM12C (Yeatman *et al. Nucl. Acids. Res.* (1995) *23*:4007; Bao-Ling *et al. Proc. Annu. Meet. Am. Assoc. Cancer. Res.* (1995) *21*:3269). The KM12C and KM12C-derived cell lines (*e.g.*, KM12L4, KM12L4-A, *etc.*) are well-recognized in the art as a model cell line for the study of colon cancer (see, *e.g.*, Moriakawa *et al.*, *supra*; Radinsky *et al. Clin. Cancer Res.* (1995) *1*:19; Yeatman *et al.*, (1995) *supra*; Yeatman *et al. Clin. Exp. Metastasis* (1996) *14*:246). The MDA-MB-231 cell line was originally isolated from pleural effusions (Cailleau, *J. Natl. Cancer. Inst.* (1974) *53*:661), is of high metastatic potential, and forms poorly differentiated adenocarcinoma grade II in nude mice consistent with breast carcinoma.

The sequences of the isolated polynucleotides were first masked to eliminate low complexity sequences using the XBLAST masking program (Claverie "Effective Large-Scale Sequence Similarity Searches," In: Computer Methods for Macromolecular Sequence Analysis, Doolittle, ed., *Meth. Enzymol.* 266:212-227 Academic Press, NY, NY (1996); see particularly Claverie, in "Automated DNA Sequencing and Analysis Techniques" Adams *et al.*, eds., Chap. 36, p. 267 Academic Press, San Diego, 1994 and Claverie *et al. Comput. Chem.* (1993) 17:191). Generally, masking does not influence the final search results, except to eliminate sequences of relative little interest due to their low complexity, and to eliminate multiple "hits" based on similarity to repetitive regions common to multiple sequences, e.g., Alu repeats. Masking resulted in the elimination of 43 sequences. The remaining sequences were then used in a BLASTN vs. GenBank search; sequences that exhibited greater than 70% overlap, 99% identity, and a p value of less than 1×10^{-40} were discarded. Sequences from this search also were discarded if the inclusive parameters were met, but the sequence was ribosomal or vector-derived.

The resulting sequences from the previous search were classified into three groups (1, 2 and 3 below) and searched in a BLASTX vs. NRP (non-redundant proteins) database search: (1) unknown (no hits in the GenBank search), (2) weak similarity (greater than 45% identity and p value of less than 1×10^{-5}), and (3) high similarity (greater than 60% overlap, greater than 80% identity, and p value less than 1×10^{-5}). Sequences having greater than 70% overlap, greater than 99% identity, and p value of less than 1×10^{-40} were discarded.

The remaining sequences were classified as unknown (no hits), weak similarity, and high similarity (parameters as above). Two searches were performed on these sequences. First, a BLAST vs. EST database search was performed and sequences with greater than 99% overlap, greater than 99% similarity and a p value of less than 1×10^{-40} were discarded. Sequences with a p value of less than 1×10^{-65} when compared to a database sequence of human origin were also excluded. Second, a BLASTN vs. Patent GeneSeq database was performed and sequences having greater than 99% identity, p value less than 1×10^{-40}, and greater than 99% overlap were discarded.

The remaining sequences were subjected to screening using other rules and redundancies in the dataset. Sequences with a p value of less than 1×10^{-111} in relation to a database sequence of human origin were specifically excluded. The final result provided the 982 sequences listed as SEQ ID NOS:1-982 in the accompanying Sequence Listing and summarized in Table 1A (inserted prior to claims). Each identified polynucleotide represents sequence from at least a partial mRNA transcript.

Table 1A provides: 1) the SEQ ID NO assigned to each sequence for use in the present specification; 2) the filing date of the U.S. priority application in which the sequence was first filed; 3) the attorney docket number assigned to the priority application (for internal use); 4) the SEQ ID NO assigned to the sequence in the priority application; 5) the sequence name used as an internal identifier of the sequence; and 6) the name assigned to the clone from which the sequence was isolated. Because the provided polynucleotides represent partial mRNA transcripts, two or more polynucleotides of the invention may represent different regions of the same mRNA transcript and the same gene. Thus, if two or more SEQ ID NOS: are identified as belonging to the same clone, then either sequence can be used to obtain the full-length mRNA or gene.

In order to confirm the sequences of SEQ ID NOS:1-982, the clones were retrieved from a library using a robotic retrieval system, and the inserts of the retrieved clones re-sequenced. These "validation" sequences are provided as SEQ ID NOS:983-996 in the Sequence Listing, and a summary of the "validation" sequences provided in Table 1B (inserted prior to claims). Table 1B provides: 1) the SEQ ID NO assigned to each sequence for use in the present specification; 2) the sample name assigned to the "validation" sequence obtained; and 3) the name of the clone that contains the indicated "validation" sequence. "Validation" sequences can be correlated with the original sequences they validate by referring to Table 1A. Because the "validation" sequences are often longer than the original polynucleotide sequences and thus provide additional sequence information. All validation sequences can be obtained either from the corresponding clone or from a cDNA library described herein (*e.g.*, using primers designed from the sequence provided in the sequence listing).

Example 2: Results of Public Database Search to Identify Function of Gene Products

SEQ ID NOS:1-1079 were translated in all three reading frames, and the nucleotide sequences and translated amino acid sequences used as query sequences to search f r homologous sequences in either the GenBank (nucleotide sequences) or Non-Redundant Protein (amino acid sequences) databases. Query and individual sequences were aligned using the BLAST 2.0 programs, available over the world wide web at http://ww.ncbi.nlm.nih.gov/BLAST/. (see also Altschul, et al. *Nucleic Acids Res.* (1997) *25*:3389-3402). The sequences were masked to various extents to prevent searching of repetitive sequences or poly-A sequences, using the XBLAST program for masking low complexity as described above in Example 1.

Tables 2A and 2B (inserted before the claims) provide the alignment summaries having a p value of 1×10^{-2} or less indicating substantial homology between the sequences of the present invention and those of the indicated public databases. Table 2A provides the SEQ ID NO of the query sequence, the accession number of the GenBank database entry of the homologous sequence, and the p value of the alignment. Table 2A provides the SEQ ID NO of the query sequence, the accession number of the Non-Redundant Protein database entry of the homologous sequence, and the p value of the alignment. The alignments provided in Tables 2A and 2B are the best available alignment to a DNA or amino acid sequence at a time just prior to filing of the present specification. The activity of the polypeptide encoded by the SEQ ID NOS listed in Tables 2A and 2B can be extrapolated to be substantially the same or substantially similar to the activity of the reported nearest neighbor or closely related sequence. The accession number of the nearest neighbor is reported, providing a publicly available reference to the activities and functions exhibited by the nearest neighbor. The public information regarding the activities and functions of each of the nearest neighbor sequences is incorporated by reference in this application. Also incorporated by reference is all publicly available information regarding the sequence, as well as the putative and actual activities and functions of the nearest neighbor sequences listed in Table 2 and their related sequences. The search program and database used for the alignment, as well as the calculation of the p value are also indicated.

Full length sequences or fragments of the polynucleotide sequences of the nearest neighbors can be used as probes and primers to identify and isolate the full length sequence of the corresponding polynucleotide. The nearest neighbors can indicate a tissue or cell type to be used to construct a library for the full-length sequences of the corresponding polynucleotides.

Example 3: Identification of Contiguous Sequences Having a Polynucleotide of the Invention

The novel polynucleotides were used to screen publicly available and proprietary databases

to determine if any of the polynucleotides of SEQ ID NOS:1-982 would facilitate identification of a contiguous sequence, *e.g.*, the polynucleotides would provide sequence that would result in 5' extension of another DNA sequence, resulting in production of a longer contiguous sequence composed of the provided polynucleotide and the other DNA sequence(s). Contiging was performed using the Gelmerge application (default settings) of GCG from the Univ. of Wisconsin.

Using these parameters, 83 contiged sequences were generated. These contiged sequences are provided as SEQ ID NOS:997-1079 (see Table 1C). Table 1C provides the SEQ ID NO of the contig sequence, the name of the sequence used to create the contig, and the accession number of the publicly available tentative human consensus (THC) sequence used with the sequence of the corresponding sequence name to provide the contig. The sequence name of Table 1C can be correlated with the SEQ ID NO: of the polynucleotide used to generate the contig by referring to Tables 1A and 1B.

The contiged sequences (SEQ ID NOS:997-1079) represent longer sequences that encompass another of the polynucleotide sequence of the invention. The contiged sequences were then translated in all three reading frames to determine the best alignment with individual sequences using the BLAST programs as described above. The sequences were masked using the XBLAST program for masking low complexity as described above in Example 1. As described in more detail below, several of the contiged sequences were found to encode polypeptides having characteristics of a polypeptide belonging to a known protein families (and thus represent new members of these protein families) and/or comprising a known functional domain (see Example 4 and Table 3 below). Thus the invention encompasses fragments, fusions, and variants of such polynucleotides that retain biological activity associated with the protein family and/or functional domain identified herein.

Example 4: Members of Protein Families

SEQ ID NOS:1-1079 were used to conduct a profile search as described in the specification above. Several of the polynucleotides of the invention were found to encode polypeptides having characteristics of a polypeptide belonging to a known protein family (and thus represent nmembers of these protein families) and/or comprising a known functional domain. Table 3 (inserted before claims) provides the SEQ ID NO: of the query sequence, a brief description of the profile hit, the position of the query sequence within the individual sequence (indicated as "start" and "stop"), and the orientation (Direction, "Dir") of the query sequence with respect to the individual sequence, where forward (for) indicates that the alignment is in the same direction (left to right) as the sequence provided in the Sequence Listing and reverse (rev) indicates that the alignment is with a sequence complementary to the sequence provided in the Sequence Listing.

Some polynucleotides exhibited multiple profile hits where the query sequence contains overlapping profile regions, and/or where the sequence contains two different functional domains. Each of the profile hits of Table 3 are described in more detail below. The acronyms for the profiles (provided in parentheses) are those used to identify the profile in the Pfam and Prosite databases. The Pfam database can be accessed through any of the following URLS: http://pfam.wustl.edu/index.html; http://www.sanger.ac.uk/ Software/Pfam/; and http://www.cgr.ki.se/Pfam/. The Prosite database can be accessed at http://www.expasy.ch/prosite/. The public information available on the Pfam and Prosite databases regarding the various profiles, including but not limited to the activities, function, and consensus sequences of various proteins families and protein domains, is incorporated herein by reference.

14-3-3 Family (14_3_3; Pfam Pfam Accession No. PF00244). SEQ ID NO:1053 corresponds to a sequence encoding a 14-3-3 protein family member. The 14-3-3 protein family includes a group of closely related acidic homodimeric proteins of about 30 kD first identified as very abundant in mammalian brain tissues and located preferentially in neurons (Aitken et al. *Trends Biochem. Sci.* (1995) *20*:95-97; Morrison *Science* (1994) *266*:56-57; and Xiao et al. *Nature* (1995) *376*:188-191). The 14-3-3 proteins have multiple biological activities, including a key role in signal transduction pathways and the cell cycle. 14-3-3 proteins interact with kinases (*e.g.*, PKC or Raf-1), and can also function as protein-kinase dependent activators of tyrosine and tryptophan hydroxylases. The 14-3-3 protein sequences are extremely well conserved, and include two highly conserved regions: the first is a peptide of 11 residues located in the N-terminal section; the second, a 20 amino acid region located in the C-terminal section. The consensus patterns are as follows: 1) R-N-L-[LIV]-S-[VG]-[GA]-Y-[KN]-N-[IVA]; 2) Y-K-[DE]-S-T-L-I-[IM]-Q-L-[LF]-[RHC]-D-N-[LF]-T-[LS]-W-[TAN]-[SAD].

Ank Repeats (ANK: Pfam Accession No. PF0023). SEQ ID NO:311, represents a polynucleotide encoding an Ank repeat-containing protein. The ankyrin motif is a 33 amino acid sequence named after the protein ankyrin which has 24 tandem 33-amino-acid motifs. Ank repeats were originally identified in the cell-cycle-control protein cdc10 (Breeden *et al., Nature* (1987) *329*:651). Proteins containing ankyrin repeats include ankyrin, myotropin, I-kappaB proteins, cell cycle protein cdc10, the Notch receptor (Matsuno *et al., Development* (1997) *124(21)*:4265); G9a (or BAT8) of the class III region of the major histocompatibility complex (Biochem J. 290:811-818, 1993), FABP, GABP, 53BP2, Lin12, glp-1, SW14, and SW16. The functions of the ankyrin repeats are compatible with a role in protein-protein interactions (Bork, *Proteins* (1993) *17(4)*:363; Lambert and Bennet, *Eur. J. Biochem.* (1993) *211*:1; Kerr *et al., Current Op. Cell Biol.* (1992) *4*:496; Bennet *et al., J. Biol. Chem.* (1980) *255*:6424).

ATPases Associated with Various Cellular Activities (ATPases; Pfam Accession No. PF0004). SEQ ID NOS:1035, 1058, and 1072 corresond to a sequence that encodes a member of a family of ATPases Associated with diverse cellular Activities (AAA). The AAA protein family is composed of a large number of ATPases that share a conserved region of about 220 amino acids containing an ATP-binding site (Froehlich *et al., J. Cell Biol.* (1991) *114*:443; Erdmann *et al. Cell* (1991) *64*:499; Peters *et al., EMBO J.* (1990) *9*:1757; Kunau *et al., Biochimie* (1993) *75*:209-224; Confalonieri *et al., BioEssays* (1995) *17*:639; http://yeamob.pci. chemie.uni-tuebingen.de/AAA/Description.html). The AAA domain, which can be present in one or two copies, acts as an ATP-dependent protein clamp (Confalonieri *et al.* (1995) *BioEssays 17*:639) and contains a highly conserved region located in the central part of the domain. The consensus pattern is: [LIVMT]-x-[LIVMT]-[LIVMF]-x-[GATMC]-[ST]-[NS]-x(4)-[LIVM]- D-x-A-[LIFA]-x-R.

Basic Region Plus Leucine Zipper Transcription Factors (BZIP: Pfam Accession No. PF00170). SEQ ID NO:918 represents a polynucleotide encoding a novel member of the family of basic region plus leucine zipper transcription factors. The bZIP superfamily (Hurst, *Protein Prof.* (1995) *2*:105; and Ellenberger, *Curr. Opin. Struct. Biol.* (1994) *4*:12) of eukaryotic DNA-binding transcription factors encompasses proteins that contain a basic region mediating sequence-specific DNA-binding followed by a leucine zipper required for dimerization. The consensus pattern for this protein family is: [KR]-x(1,3)-[RKSAQ]-N-x(2)-[SAQ](2)-x-[RKTAENQ]-x-R-x-[RK].

EF Hand (Efhand; Pfam Accession No. PF00036). SEQ ID NO:242 corresponds to a polynucleotide encoding a member of the EF-hand protein family, a calcium binding domain shared by many calcium-binding proteins belonging to the same evolutionary family (Kawasaki *et al., Protein. Prof.* (1995) *2*:305-490). The domain is a twelve residue loop flanked on both sides by a twelve residue alpha-helical domain, with a calcium ion coordinated in a pentagonal bipyramidal configuration. The six residues involved in the binding are in positions 1, 3, 5, 7, 9 and 12; these residues are denoted by X, Y, Z, -Y, -X and -Z. The invariant Glu or Asp at position 12 provides two oxygens for liganding Ca (bidentate ligand). The consensus pattern includes the complete EF-hand loop as well as the first residue which follows the loop and which seem to always be hydrophobic: D-x-[DNS]-{ILVFYW}-[DENSTG]-[DNQGHRK]-{GP}-[LIVMC]-[DENQSTAGC]-x(2)-[DE]-[LIVMFYW].

Ets Domain (Ets_Nterm; Pfam Accession No. PF110178). SEQ ID NO:547, and thus the sequence it validates, represents a polynucleotide encoding a polypeptide with N-terminal homology in ETS domain. Proteins of this family contain a conserved domain, the "ETS-domain," that is involved in DNA binding. The domain appears to recognize purine-rich sequences; it is about 85 to 90 amino acids in length, and is rich in aromatic and positively charged residues (Wasylyk, et al., *Eur. J. Biochem.* (1993) *211*:718). The *ets* gene family encodes a novel class of DNA-binding

proteins, each of which binds a specific DNA sequence and comprises an *ets* domain that specifically interacts with sequences containing the common core tri-nucleotide sequence GGA. In addition to an *ets* domain, native *ets* proteins comprise ther sequences which can modulate the biological specificity of the protein. *Ets* genes and proteins are involved in a variety of essential biological processes including cell growth, differentiation and development, and three members are implicated in oncogenic process.

(FKH; Pfam Accession No.PF00250). SEQ ID NO:925 corresponds to a gene encoding a polypeptide comprising a forkhead domain. The forkhead domain (also known as a "winged helix") is present in a family of eukaryotic transcription factors, and is a conserved domain of about 100 amino acid residues that is involved in DNA-binding (Weigel *et al. Cell* (1990) *63*:455-456; Clark *et al. Nature* (1993) *364*:412-420). Mammalian genes that comprise a forkhead domain include those encoding: 1) transcriptional activators (*e.g.*, HNF-3-alpha, -beta, and -gamma proteins, which interact with the cis-acting regulatory regions of a number of liver genes); 2) interleukin-enhancer binding factor (ILF), which binds to purine-rich NFAT-like motifs in the HIV-1 LTR and the interleukin-2 promoter and is involved in both positive and negative regulation of important viral and cellular promoter elements; 3) transcription factor BF-1, which plays an important role in the establishment of the regional subdivision of the developing brain and in the development of the telencephalon; 4) human HTLF, which binds to the purine-rich region in human T-cell leukemia virus long terminal repeat (HTLV-I LTR); 5) transcription factors FREAC-1 (FKHL5, HFH-8), FREAC-2 (FKHL6), FREAC-3 (FKHL7, FKH-1), FREAC-4 (FKHL8), FREAC-5 (FKHL9, FKH-2, HFH-6), FREAC-6 (FKHL10, HFH-5), FREAC-7 (FKHL11), FREAC-8 (FKHL12, HFH-7), FKH-3, FKH-4, FKH-5, HFH-1 and HFH-4; 6) human AFX1 which is involved in a chromosomal translocation that causes acute leukemia; and 7) human FKHR which is involved in a chromosomal translocation that causes rhabdomyosarcoma. The fork domain is highly conserved, and is detected by two consensus patterns: the first corresponding to the N-terminal section of the domain; the second corresponding to a heptapeptide located in the central section of the domain. The consensus patterns are as follows: 1) [KR]-P-[PTQ]-[FYLVQH]-S-[FY]-x(2)-[LIVM]-x(3,4)-[AC]- [LIM]; and 2) W-[QKR]-[NS]-S-[LIV]-R-H.

Helicases conserved C-terminal domain (helicase_C; Pfam Accession No. PF00271). SEQ ID NOS:227 and 1058 represent polynucleotides encoding novel members of the DEAD/H helicase family. The DEAD box family comprises a number of eukaryotic and prokaryotic proteins involved in ATP-dependent, nucleic-acid unwinding. All DEAD box family members of the above proteins share a number of conserved sequence motifs, some of which are specific to the DEAD family while others are shared by other ATP-binding proteins or by proteins belonging to the helicases 'superfamily' (Hodgman, *Nature* (1988) *333*:22 and *Nature* (1988) *333*:578;

http://www.expasy.ch/www/linder/ HELICASES_TEXT.html). One of these m tifs, called the 'D-E-A-D-box', represents a special version of the B motif of ATP-binding proteins. Some other proteins belong to a subfamily which have His instead of the second Asp and are thus said to be 'D-E-A-H-box' proteins (Wassarman D.A.. et al., *Nature* (1991) *349*:463; Harosh I., et al., *Nucleic Acids Res.* (1991) *19*:6331; Koonin E.V., et al., *J. Gen. Virol.* (1992) *73*:989; http://www.expasy.ch/www/linder/ HELICASES_TEXT.html). The following signature patterns are used to identify member for both subfamilies: 1) [LIVMF](2)-D-E-A-D-[RKEN]-x-[LIVMFYGSTN]; and 2) [GSAH]-x-[LIVMF](3)-D-E-[ALIV]-H-[NECR].

Kazal serine protease inhibitors family signature (Kazal; Pfam Accession No. PF00050). SEQ ID NO:97 corresponds to a polynucleotide of a gene encoding a serine protease inhibitor of the Kazal inhibitor family (Laskowski *et al. Annu. Rev. Biochem.* (1980) *49*:593-626). The basic structure of Kazal serine protease inhibitors such a type of inhibitor is described at Pfam Accession No. PF00050. Exemplary proteins known to belong to this family include: pancreatic secretory trypsin inhibitor (PSTI), whose physiological function is to prevent the trypsin-catalyzed premature activation of zymogens within the pancreas; mammalian seminal acrosin inhibitors; canidae and felidae submandibular gland double-headed protease inhibitors, which contain two Kazal-type domains, the first one inhibits trypsin and the second one elastase: a mouse prostatic secretory glycoprotein, induced by androgens, and which exhibits anti-trypsin activity; avian ovomucoids; chicken ovoinhibitor; and the leech trypsin inhibitor Bdellin B-3. The consensus pattern is as follows: C-x(7)-C-x(6)-Y-x(3)-C-x(2,3)-C, where the four C's are involved in disulfide bonds.

MAP kinase kinase (mkk). SEQ ID NOS:635 and 992 represent members of the MAP kinase kinase (mkk) family. MAP kinases (MAPK) are involved in signal transduction, and are important in cell cycle and cell growth controls. The MAP kinase kinases (MAPKK) are dual-specificity protein kinases which phosphorylate and activate MAP kinases. MAPKK homologues have been found in yeast, invertebrates, amphibians, and mammals. Moreover, the MAPKK/MAPK phosphorylation switch constitutes a basic module activated in distinct pathways in yeast and in vertebrates. MAPKKs are essential transducers through which signals must pass before reaching the nucleus. For review, see, *e.g.*, Biologique *Biol Cell* (1993) *79*:193-207; Nishida *et al., Trends Biochem Sci* (1993) *18*:128-31; Ruderman *Curr Opin Cell Biol* (1993) *5*:207-13; Dhanasekaran *et al., Oncogene* (1998) *17*:1447-55; Kiefer *et al., Biochem Soc Trans* (1997) *25*:491-8; and Hill, *Cell Signal* (1996) *8*:533-44.

Neurotransmitter-Gated Ion-Channel (neur_chan: Pfam Accession No. PF00065). SEQ ID NO:1078 corresponds to a sequence encoding a neurotransmitter-gated ion channel. Neurotransmitter-gated ion-channels, which provide the molecular basis for rapid signal transmission at chemical synapses, are post-synaptic oligomeric transmembrane complexes that transiently form a ionic channel upon the binding of a specific neurotransmitter. Five types of neurotransmitter-gated

receptors are known: 1) nicotinic acetylcholine receptor (AchR); 2) glycine receptor; 3) gamma-aminobutyric-acid (GABA) receptor; 4) serotonin 5HT3 receptor; and 5) glutamate receptor. All known sequences of subunits from neurotransmitter-gated ion-channels are structurally related, and are composed of a large extracellular glycosylated N-terminal ligand-binding domain, followed by three hydrophobic transmembrane regions that form the ionic channel, followed by an intracellular region of variable length. A fourth hydrophobic region is found at the C-terminal of the sequence. The consensus pattern is: C-x-[LIVMFQ]-x-[LIVMF]-x(2)-[FY]-P-x-D-x(3)-C, where the two C's are linked by a disulfide bond.

PDZ Domain (PDZ; Pfam Accession No. PF00595.) SEQ ID NOS:523 and 980 correspond to a gene comprising a PDZ domain (also known as DHR or GLGF domain). PDZ domains comprise 80-100 residue repeats, several of which interact with the C-terminal tetrapeptide motifs X-Ser/Thr-X-Val-COO- of ion channels and/or receptors, and are found in mammalian proteins as well as in bacteria, yeast, and plants (Pontig *et al. Protein Sci* (1997) *6*(2):464-8). Proteins comprising one or more PDZ domains are found in diverse membrane-associated proteins, including members of the MAGUK family of guanylate kinase homologues, several protein phosphatases and kinases, neuronal nitric oxide synthase, and several dystrophin-associated proteins, collectively known as syntrophins (Ponting *et al. Bioessays* (1997) *19*(6):469-79). Many PDZ domain-containing proteins are localised to highly specialised submembranous sites, suggesting their participation in cellular junction formation, receptor or channel clustering, and intracellular signalling events. For example, PDZ domains of several MAGUKs interact with the C-terminal polypeptides of a subset of NMDA receptor subunits and/or with Shaker-type K+ channels. Other PDZ domains have been shown to bind similar ligands of other transmembrane receptors. In cell junction-associated proteins,the PDZ mediates the clustering of membrane ion channels by binding to their C-terminus. The X-ray crystallographic structure of some proteins comrpising PDZ domains have been solved (see, *e.g.*, Doyle *et al. Cell* (1996) *85*(7):1067-76).

Protein phosphatase 2A regulatory subunit PR55 signatures (PR55; Pfam Accession No. PF01240). SEQ ID NO:1028 corresponds to a gene encoding a protine phosphatase 2A reguatory subunit. Protein phosphatase 2A (PP2A) is a serine/threonine phosphatase involved in many aspects of cellular function including the regulation of metabolic enzymes and proteins involved in signal transduction. PP2A is a trimeric enzyme that consists of a core composed of a catalytic subunit associated with a 65 Kd regulatory subunit (PR65), also called subunit A; this complex then associates with a third variable subunit (subunit B), which confers distinct properties to the holoenzyme (Mayer *et al. Trends Cell Biol.* (1994) *4*:287-291). One of the forms of the variable subunit is a 55 Kd protein (PR55) which is highly conserved in mammals (where three isoforms are known to exist). This subunit may perform a substrate recognition function or be responsible for

targeting the enzyme complex to the appropriate subcellular compartment. Two perfectly conserved sequences of 15 residues, one located the N-terminal region, the other in the center of th protein, serv as the basis for the consensus patterns: 1) E-F-D-Y-L-K-S-L-E-I-E-E-K-I-N; 2) N-[AG]-H-[TA]-Y-H-I-N-S-I-S-[LIVM]-N-S-D

Protein Kinase (protkinase: Pfam Accession No. PF00069). SEQ ID NOS:635, 992, and 1078 represent polynucleotides encoding protein kinases, which catalyze phosphorylation of proteins in a variety of pathways, and are implicated in cancer. Eukaryotic protein kinases (Hanks, *et al.*, *FASEB J.* (1995) *9*:576; Hunter, *Meth. Enzymol.* (1991) *200*:3; Hanks, *et al.*, *Meth. Enzymol.* (1991) *200*:38; Hanks, *Curr. Opin. Struct. Biol.* (1991) *1*:369; Hanks *et al.*, *Science* (1988) *241*:42) belong to a very extensive family of proteins that share a conserved catalytic core common to both serine/threonine and tyrosine protein kinases. There are a number of conserved regions in the catalytic domain of protein kinases. The first region, located in the N-terminal extremity of the catalytic domain, is a glycine-rich stretch of residues in the vicinity of a lysine residue, which has been shown to be involved in ATP binding. The second region, located in the central part of the catalytic domain, contains a conserved an aspartic acid residue that is important for the catalytic activity of the enzyme (Knighton, *et al.*, *Science* (1991) *253*:407).

The protein kinase profile includes two signature patterns for this second region: one specific for serine/threonine kinases and the other for tyrosine kinases. A third profile is based on the alignment in (Hanks, *et al.*, *FASEB J.* (1995) *9*:576) and covers the entire catalytic domain. The consensus patterns are as follows: 1) [LIV]-G-{P}-G-{P}-[FYWMGSTNH]-[SGA]-{PW}-[LIVCAT]-{PD}-x-[GSTACLIVMFY]-x(5,18)-[LIVMFYWCSTAR]-[AIVP]-[LIVMFAGCKR]-K, where K binds ATP; 2) [LIVMFYC]-x-[HY]-x-D-[LIVMFY]-K-x(2)-N-[LIVMFYCT](3), where D is an active site residue; and 3) [LIVMFYC]-x-[HY]-x-D-[LIVMFY]-[RSTAC]-x(2)-N-[LIVMFYC], where D is an active site residue.

Ras family proteins (ras; Pfam Accession No. PF00071). SEQ ID NO:527 represents polynucleotides encoding the ras family of small GTP/GDP-binding proteins (Valencia et al., 1991, Biochemistry 30:4637-4648). Ras family members generally require a specific guanine nucleotide exchange factor (GEF) and a specific GTPase activating protein (GAP) as stimulators of overall GTPase activity. Among ras-related proteins, the highest degree of sequence conservation is found in four regions that are directly involved in guanine nucleotide binding. The first two constitute most of the phosphate and Mg2+ binding site (PM site) and are located in the first half of the G-domain. The other two regions are involved in guanosine binding and are located in the C-terminal half of the molecule. Motifs and conserved structural features of the ras-related proteins are described in Valencia et al., 1991, Biochemistry 30:4637-4648. A major consensus pattern of ras proteins is: D-T-A-G-Q-E-K-[LF]-G-G-L-R-[DE]-G-Y-Y.

Src homology domain 3 (SH3; Pfam Accession No. PF00018). SEQ IDNO:450 corresponds to a gene comprising a Src homology domain. The Src homology 3 (SH3) domain is a small protein domain of about 60 amino acid residues first identified as a conserved sequence in the non-catalytic part of several cytoplasmic protein tyrosine kinases (e.g. Src, Abl, Lck) (Mayer *et al. Nature* (1988) *332*:272-275). Since then, it has been found in a great variety of other intracellular or membrane-associated proteins (Musacchio *et al. FEBS Lett.* (1992) *307*:55-61; Pawson *et al. Curr. Biol.* (1993) *3*:434-442; Mayer *et al. Trends Cell Biol.* (1993) *3*:8-13; Pawson *Nature* (1995) *373*:573-580). The SH3 domain has a characteristic fold which consists of five or six beta-strands arranged as two tightly packed anti-parallel beta sheets. The linker regions may contain short helices (Kuriyan *et al. Curr. Opin. Struct. Biol.* (1993) *3*:828-837). The SH3 domain is thought to mediate assembly of specific protein complexes via binding to proline-rich peptides (Morton *et al. Curr. Biol.* (1994) *4*:615-617). In general SH3 domains are found as single copies in a given protein, but there a significant number of proteins comprise two SH3 domains and a few comprise 3 or 4 copies. The profile to detect SH3 domains is based on a structural alignment consisting of 5 gap-free blocks and 4 linker regions totaling 62 match positions.

Trypsin (trypsin; Pfam Accession No. PF00089). SEQ ID NOS:635, 995, and 984 correspond to novel serine proteases of the trypsin family. The catalytic activity of the serine proteases from the trypsin family is provided by a charge relay system involving an aspartic acid residue hydrogen-bonded to a histidine, which itself is hydrogen-bonded to a serine. The sequences in the vicinity of the active site serine and histidine residues are well conserved (Brenner *Nature* (1988) *334*:528). The consensus patterns for the trypsin protein family are: 1) [LIVM]-[ST]-A-[STAG]-H-C, where H is the active site residue; and 2) [DNSTAGC]-[GSTAPIMVQH]-x(2)-G-[DE]-S-G-[GS]-[SAPHV]-[LIVMFYWH]-[LIVMFYSTANQH], where S is the active site residue. All sequences known to belong to this family are detected by the above consensus sequences, except for 18 different proteases which have lost the first conserved glycine. If a protein includes both the serine and the histidine active site signatures, the probability of it being a trypsin family serine protease is 100%.

WD Domain, G-Beta Repeats (WD_domain; Pfam Accession No. PF00400). SEQ ID NOS:505, 721, and 1018 represent a members of the WD domain/G-beta repeat family. Beta-transducin (G-beta) is one of the three subunits (alpha, beta, and gamma) of the guanine nucleotide-binding proteins (G proteins) which act as intermediaries in the transduction of signals generated by transmembrane receptors (Gilman, *Annu. Rev. Biochem.* (1987) *56*:615). The alpha subunit binds to and hydrolyzes GTP; the beta and gamma subunits are required for the replacement of GDP by GTP as well as for membrane anchoring and receptor recognition. In higher eukaryotes, G-beta exists as a small multigene family of highly conserved proteins of about 340 amino acid residues. Structurally, G-beta has eight tandem repeats of about 40 residues, each containing a central Trp-Asp motif (this

type of repeat is sometimes called a WD-40 repeat). The consensus pattern for the WD domain/G-Beta repeat family is: [LIVMSTAC]-[LIVMFYWSTAGC]-[LIMSTAG]-[LIVMSTAGC]-x(2)-[DN]-x(2)-[LIVMWSTAC]-x-[LIVMFSTAG]-W-[DEN]-[LIVMFSTAGCN].

WW/rsp5/WWP domain signature and profile (WW domain; Pfam Accession No. PF00397). SEQ ID NO:606 corresponds to a gene encoding a protein comprising a WW domain. The WW domain (Bork *et al. Trends Biochem. Sci.* (1994) *19*:531-533; Andre *et al. Biochem. Biophys. Res. Commun.* (1994) *205*:1201-1205; Hofmann *et al. FEBS Lett.* (1995) *358*:153-157; Sudol *et al. FEBS Lett.* (1995) *369*:67-71; http://www.bork.embl-heidelberg.de/Modules/ww-gif.html) (also known as rsp5 or WWP) was discovered as a short conserved region in a number of unrelated proteins, among them dystrophin, the gene responsible for Duchenne muscular dystrophy. The domain, which spans about 35 residues, is repeated up to 4 times in some proteins. It has been shown (Chen *et al. Proc. Natl. Acad. Sci. U.S.A.* (1995) *92*:7819-7823) to bind proteins with particular proline-motifs, [AP]-P-P-[AP]-Y, and thus resembles somewhat SH3 domains. The WW domain conatins beta-strands grouped around four conserved aromatic positions, generally tryptophan. The name WW or WWP derives from the presence of two tryptophane as well as a conserved proline. The WW domain is frequently associated with other domains typical for proteins in signal transduction processes. The consensus pattern for WW domains is: W-x(9,11)-[VFY]-[FYW]-x(6,7)-[GSTNE]-[GSTQCR]-[FYW]-x(2)-P.

Zinc Finger, C2H2 Type (Zincfing_C2H2; Pfam Accession No. PF00096). Several sequences corresponded to polynucleotides encoding members of the C2H2 type zinc finger protein family, which contain zinc finger domains that facilitate nucleic acid binding (Klug *et al.*, *Trends Biochem. Sci.* (1987) *12*:464; Evans *et al.*, *Cell* (1988) *52*:1; Payre *et al.*, *FEBS Lett.* (1988) *234*:245; Miller *et al.*, *EMBO J.* (1985) *4*:1609; and Berg, *Proc. Natl. Acad. Sci. USA* (1988) *85*:99). In addition to the conserved zinc ligand residues, a number of other positions are also important for the structural integrity of the C2H2 zinc fingers. (Rosenfeld *et al.*, *J. Biomol. Struct. Dyn.* (1993) *11*:557) The best conserved position, which is generally an aromatic or aliphatic residue, is located four residues after the second cysteine. The consensus pattern for C2H2 zinc fingers is: C-x(2,4)-C-x(3)-[LIVMFYWC]-x(8)-H-x(3,5)-H. The two C's and two H's are zinc ligands.

Zinc finger, C3HC4 type (RING finger), signature (Zincfing_C3H4; Pfam Accession No. PF00097). SEQ ID NOS:805 and 1078 represent polynucleotides encoding a polypeptide having a C3HC4 type zinc finger signature. A number of eukaryotic and viral proteins contain this signature, which is primarily a conserved cysteine-rich domain of 40 to 60 residues (Borden K.L.B., et al., *Curr. Opin. Struct. Biol.* (1996) *6*:395) that binds two atoms of zinc, and is probably involved in mediating protein-protein interactions. The 3D structure of the zinc ligation system is uniqueto the RING domain and is refered to as the "cross-brace" motif. The spacing of the cysteines

in such a domain is C-x(2)-C-x(9 to 39)-C-x(1 to 3)-H-x(2 to 3)-C-x(2)-C-x(4 to 48)-C-x(2)-C. The signature pattern for the C3HC4 finger is based on the central region of the domain: C-x-H-x-[LIVMFY]-C-x(2)-C-[LIVMYA].

Zinc finger, CCHC type (Zincfing_CCHC; Pfam Accession No. PF00098). SEQ ID NOS:693,973, and 1078 correspond to genes encoding a member of the family of CCHC zinc fingers. Because the prototype CCHC type zinc finger structure is from an HIV protein, this domain is also referred to as a retrovrial-type zinc finger domain. The family also contains proteins involved in eukaryotic gene regulation, such as C. elegans GLH-1. The structure is an 18-residue zinc finger; no examples of indels in the alignment. The motif that defines a CCHC type zinc finger domain is: C-X2-C-X4-H-X4-C (Summers J Cell Biochem 1991 Jan;45(1):41-8). The domain is found in, for example, HIV-1 nucleocapsid protein, Moloney murine leukemia virus nucleocapsid protine NCp10 (De Rocquigny *et al. Nucleic Acids Res.* (1993) *21*:823-9), and myelin transcription factor 1 (Myt1) (Kim *et al. J. Neurosci. Res.* (1997) *50*:272-90).

Example 5: Differential Expression of Polynucleotides of the Invention: Description of Libraries and Detection of Differential Expression

The relative expression levels of the polynucleotides of the invention was assessed in several libraries prepared from various sources, including cell lines and patient tissue samples. Table 4 provides a summary of these libraries, including the shortened library name (used hereafter), the mRNA source used to prepared the cDNA library, the "nickname" of the library that is used in the tables below (in quotes), and the approximate number of clones in the library.

Table 4. Description of cDNA Libraries

Library (lib #)	Description	Numb r f Clones in Library
1	Human Colon Cell Line Km12 L4: High Metastatic Potential (derived from Km12C)	308731
2	Human Colon Cell Line Km12C: Low Metastatic Potential	284771
3	Human Breast Cancer Cell Line MDA-MB-231: High Metastatic Potential; micro-mets in lung	326937
4	Human Breast Cancer Cell Line MCF7: Non Metastatic	318979
8	Human Lung Cancer Cell Line MV-522: High Metastatic Potential	223620
9	Human Lung Cancer Cell Line UCP-3: Low Metastatic Potential	312503
12	Human microvascular endothelial cells (HMVEC) - UNTREATED (PCR (OligodT) cDNA library)	41938
13	Human microvascular endothelial cells (HMVEC) – bFGF TREATED (PCR (OligodT) cDNA library)	42100
14	Human microvascular endothelial cells (HMVEC) – VEGF TREATED (PCR (OligodT) cDNA library)	42825
15	Normal Colon - UC#2 Patient (MICRODISSECTED PCR (OligodT) cDNA library)	282722
16	Colon Tumor - UC#2 Patient (MICRODISSECTED PCR (OligodT) cDNA library)	298831
17	Liver Metastasis from Colon Tumor of UC#2 Patient (MICRODISSECTED PCR (OligodT) cDNA library)	303467
18	Normal Colon - UC#3 Patient (MICRODISSECTED PCR (OligodT) cDNA library)	36216
19	Colon Tumor - UC#3 Patient (MICRODISSECTED PCR (OligodT) cDNA library)	41388
20	Liver Metastasis from Colon Tumor of UC#3 Patient (MICRODISSECTED PCR (OligodT) cDNA library)	30956
21	GRRpz Cells derived from normal prostate epithelium	164801
22	WOca Cells derived from Gleason Grade 4 prostate cancer epithelium	162088
23	Normal Lung Epithelium of Patient #1006 (MICRODISSECTED PCR (OligodT) cDNA library)	306198
24	Primary tumor, Large Cell Carcinoma of Patient #1006 (MICRODISSECTED PCR (OligodT) cDNA library)	309349

The KM12L4, KM12C, and MDA-MB-231 cell lines are described in Example 1 above. The MCF7 cell line was derived from a pleural effusion of a breast adenocarcinoma and is non-metastatic. The MV-522 cell line is derived from a human lung carcinoma and is of high metastatic potential. The UCP-3 cell line is a low metastatic human lung carcinoma cell line; the MV-522 is a high metastatic variant of UCP-3. These cell lines are well-recognized in the art as models for the study of human breast and lung cancer (see, *e.g.*, Chandrasekaran *et al.*, *Cancer Res.* (1979) *39*:870

(MDA-MB-231 and MCF-7); Gastpar *et al.*, *J Med Chem* (1998) *41*:4965 (MDA-MB-231 and MCF-7); Ranson *et al.*, *Br J Cancer* (1998) *77*:1586 (MDA-MB-231 and MCF-7); Kuang *et al.*, *Nucleic Acids Res* (1998) *26*:1116 (MDA-MB-231 and MCF-7); Varki *et al.*, *Int J Cancer* (1987) *40*:46 (UCP-3); Varki *et al.*, *Tumour Biol.* (1990) *11*:327; (MV-522 and UCP-3); Varki *et al.*, *Anticancer Res.* (1990) *10*:637; (MV-522); Kelner *et al.*, *Anticancer Res* (1995) *15*:867 (MV-522); and Zhang *et al.*, *Anticancer Drugs* (1997) *8*:696 (MV522)). The samples of libraries 15-20 are derived from two different patients (UC#2, and UC#3). The bFGF-treated HMVEC were prepared by incubation with bFGF at 10ng/ml for 2 hrs; the VEGF-treated HMVEC were prepared by incubation with 20ng/ml VEGF for 2 hrs. Following incubation with the respective growth factor, the cells were washed and lysis buffer added for RNA preparation. The GRRpz and WOca cell lines were provided by Dr. Donna M. Peehl, Department of Medicine, Stanford University School of Medicine. GRRpz was derived from normal prostate epithelium. The WOca cell line is a Gleason Grade 4 cell line.

Each of the libraries is composed of a collection of cDNA clones that in turn are representative of the mRNAs expressed in the indicated mRNA source. In order to facilitate the analysis of the millions of sequences in each library, the sequences were assigned to clusters. The concept of "cluster of clones" is derived from a sorting/grouping of cDNA clones based on their hybridization pattern to a panel of roughly 300 7bp oligonucleotide probes (see Drmanac *et al.*, *Genomics* (1996) *37*(1):29). Random cDNA clones from a tissue library are hybridized at moderate stringency to 300 7bp oligonucleotides. Each oligonucleotide has some measure of specific hybridization to that specific clone. The combination of 300 of these measures of hybridization for 300 probes equals the "hybridization signature" for a specific clone. Clones with similar sequence will have similar hybridization signatures. By developing a sorting/grouping algorithm to analyze these signatures, groups of clones in a library can be identified and brought together computationally. These groups of clones are termed "clusters". Depending on the stringency of the selection in the algorithm (similar to the stringency of hybridization in a classic library cDNA screening protocol), the "purity" of each cluster can be controlled. For example, artifacts of clustering may occur in computational clustering just as artifacts can occur in "wet-lab" screening of a cDNA library with 400 bp cDNA fragments, at even the highest stringency. The stringency used in the implementation of cluster herein provides groups of clones that are in general from the same cDNA or closely related cDNAs. Closely related clones can be a result of different length clones of the same cDNA, closely related clones from highly related gene families, or splice variants of the same cDNA.

Differential expression for a selected cluster was assessed by first determining the number of cDNA clones corresponding to the selected cluster in the first library (Clones in 1st), and the determining the number of cDNA clones corresponding to the selected cluster in the second library (Clones in 2nd). Differential expression of the selected cluster in the first library relative to the

second library is expressed as a "ratio" of percent expression between the two libraries. In general, the "ratio" is calculated by: 1) calculating the percent expression of the selected cluster in the first library by dividing th number of clones corresponding to a selected cluster in the first library by the total number of clones analyzed from the first library; 2) calculating the percent expression of the selected cluster in the second library by dividing the number of clones corresponding to a selected cluster in a second library by the total number of clones analyzed from the second library; 3) dividing the calculated percent expression from the first library by the calculated percent expression from the second library. If the "number of clones" corresponding to a selected cluster in a library is zero, the value is set at 1 to aid in calculation. The formula used in calculating the ratio takes into account the "depth" of each of the libraries being compared, *i.e.*, the total number of clones analyzed in each library.

In general, a polynucleotide is said to be significantly differentially expressed between two samples when the ratio value is greater than at least about 2, preferably greater than at least about 3, more preferably greater than at least about 5 , where the ratio value is calculated using the method described above. The significance of differential expression is determined using a z score test (Zar, Biostatistical Analysis, Prentice Hall, Inc., USA, "Differences between Proportions," pp 296-298 (1974).

Examples 6-11: Differential Expression of Polynucleotides of the Invention

A number of polynucleotide sequences have been identified that are differentially expressed between, for example, cells derived from high metastatic potential cancer tissue and low metastatic cancer cells, and between cells derived from metastatic cancer tissue and normal tissue. Evaluation of the levels of expression of the genes corresponding to these sequences can be valuable in diagnosis, prognosis, and/or treatment (*e.g.*, to facilitate rationale design of therapy, monitoring during and after therapy, *etc.*). Moreover, the genes corresponding to differentially expressed sequences described herein can be therapeutic targets due to their involvement in regulation (*e.g.*, inhibition or promotion) of development of, for example, the metastatic phenotype. For example, sequences that correspond to genes that are increased in expression in high metastatic potential cells relative to normal or non-metastatic tumor cells may encode genes or regulatory sequences involved in processes such as angiogenesis, differentiation, cell replication, and metastasis.

Detection of the relative expression levels of differentially expressed polynucleotides described herein can provide valuable information to guide the clinician in the choice of therapy. For example, a patient sample exhibiting an expression level of one or more of these polynucleotides that corresponds to a gene that is increased in expression in metastatic or high metastatic potential cells may warrant more aggressive treatment for the patient. In contrast, detection of expression levels of

a polynucleotide sequence that corresponds to expression levels associated with that of low metastatic potential cells may warrant a more positive prognosis than the gross pathology would suggest.

A number of polynucleotide sequences of the present invention are differentially expressed between human microvascular endothelial cells (HMVEC) that have been treated with growth factors relative to untreated HMVEC. Sequences that are differentially expressed between growth factor-treated HMVEC and untreated HMVEC can represent sequences encoding gene products involved in angiogenesis, metastasis (cell migration), and other development and oncogenic processes. For example, sequences that are more highly expressed in HMVEC treated with growth factors (such as bFGF or VEGF) relative to untreated HMVEC can serve as drug targets for chemotherapeutics, *e.g.*, decreasing expression of such up-regulated genes or inhibitin gthe activity of the encoded gene product would serve to inhibit tumor cell angiogenesis. Detection of expression of these sequences in colon cancer tissue can be valuable in determining diagnostic, prognostic and/or treatment information associated with the prevention of achieving the malignant state in these tissues, and can be important in risk assessment for a patient. A patient sample displaying an increased level of one or more of these polynucleotides may thus warrant closer attention or more frequent screening procedures to catch the malignant state as early as possible.

The differential expression of the polynucleotides described herein can thus be used as, for example, diagnostic markers, prognostic markers, for risk assessment, patient treatment and the like. These polynucleotide sequences can also be used in combination with other known molecular and/or biochemical markers. The following examples provide relative expression levels of polynucleotides from specified cell lines and patient tissue samples.

<u>Example 6:</u> <u>High Metastatic Potential Breast Cancer Versus Low Metastatic Breast Cancer Cells</u>

The tables bellow summarize the data for polynucleotides that represent genes differentially expressed between high metastatic potential and low metastatic potential breast cancer cells.

Table 5. High metastatic potential breast (lib3) > low metastatic potential breast cancer cells (lib4)

SEQ ID NO:	Lib 3 Clones	Lib4 Clones	Lib3/Lib4
781	13	0	12.68
778	9	0	8.78
756	8	0	7.81
779	7	0	6.83
691	7	0	6.83
686	7	0	6.83
916	6	0	5.85

Table 6. Low metastatic potential breast (lib4) > high metastatic potential breast cancer cells (lib3)

Table 6			
SEQ ID NO:	**Lib 3 Clones**	**Lib4 Clones**	**Lib4/Lib3**
558	0	340	348.48
656	0	64	65.6
661	0	57	58.42
647	0	43	44.07
547	0	41	42.02
648	0	40	41
592	4	115	29.47
654	0	28	28.7
646	0	21	21.52
636	3	61	20.84
533	1	17	17.42
549	0	17	17.42
650	3	50	17.08
589	0	16	16.4
110	0	16	16.4
657	0	16	16.4
624	0	16	16.4
637	0	13	13.32
536	0	12	12.3
653	1	11	11.27
562	1	11	11.27
587	1	11	11.27
609	1	11	11.27
590	0	10	10.25
641	0	10	10.25
532	1	10	10.25
623	0	9	9.22
591	0	8	8.2
521	0	8	8.2
214	0	7	7.17
607	0	7	7.17
554	0	7	7.17
555	0	7	7.17
582	0	7	7.17
584	0	7	7.17
599	0	7	7.17
561	0	6	6.15
572	0	6	6.15
359	0	6	6.15
635	0	6	6.15
113	0	6	6.15
603	0	6	6.15

Example 7: High Metastatic Potential Lung Cancer Versus Low Metastatic Lung Cancer Cells

The following summarizes polynucleotides that represent genes differentially expressed between high metastatic potential lung cancer cells and low metastatic potential lung cancer cells:

Table 7. High metastatic potential lung (lib8) > low metastatic potential lung cancer cells (lib9)

SEQ ID NO:	Lib 8 Clones	Lib 9 Clones	Lib8/Lib9
571	35	1	48.91
969	8	0	11.18
350	5	0	6.99

Example 8: High Metastatic Potential Colon Cancer Versus Low Metastatic Colon Cancer Cells

Table 8 summarizes polynucleotides that represent genes differentially expressed between high metastatic potential and low metastatic potential colon cancer cells:

Table 8. Low metastatic potential colon (lib2) > high metastatic potential colon cancer cells (lib1)

SEQ ID NO:	Lib1 Clones	Lib2 Clones	Lib2/Lib1
57	0	8	8.67
103	0	6	6.5
189	0	6	6.5

Example 9: High Tumor Potential Colon Tissue Vs. Metastasized Colon Cancer Tissue

The following table summarizes polynucleotides that represent genes differentially expressed between high tumor potential colon cancer cels and cells derived from high metastatic potential colon cancer cells of a patient.

Table 9. High tumor potential colon tissue (lib16) vs. high metastatic colon tissue (lib17)

SEQ ID NO:	Lib 16 Clones	Lib 17 Clones	Lib17/Lib16
100	0	7	6.89
370	3	12	3.94

Example 10: Differential Expression Across Multiple Libraries

A number of polynucleotide sequences have been identified that represent genes that are differentially expressed across multiple libraries. Expression of these sequences in a tissue or any origin can be valuable in determining diagnostic, prognostic and/or treatment information associated with the prevention of achieving the malignant state in these tissues, and can be important in risk assessment for a patient. These polynucleotides can also serve as non-tissue specific markers of, for example, risk of metastasis of a tumor. The differential expression data for these sequences is provided inTable 10 below.

Table 10. Genes Differentially Expressed Across Multiple Library Comparisons

SEQ ID NO:	Cell or Tissue Sample and Cancer State Compared	RATIO
34	Low Met Colon (lib2) > High Met Colon (lib1)	8.67
34	High Met Breast (lib3) > Low Met Breast (Lib4)	5.85
209	Low Met Lung (lib9) > High Met Lung (lib8)	17.44
209	Colon Tumor Tissue (lib16) > Normal Colon Tissue (lib15)	3.42
209	Colon Tumor Tissue (lib19) > Normal Colon Tissue (lib18)	66.5
209	High Met Colon Tissue (lib20) > Normal Colon Tissue (lib18)	14.04
209	Colon Tumor Tissue (lib19) > High Met Colon Tissue (lib20)	4.74
316	High Met Colon (lib1) > Low Met Colon (lib2)	5.76
316	Low Met Breast (lib4) > High Met Breast (Lib3)	17.28
645	Low Met Breast (lib4) > High Met Breast (Lib3)	6.15
645	High Met Lung (lib8) > Low Met Lung (lib9)	19.56
854	High Met Breast (lib3) > Low Met Breast (Lib4)	9.76
854	HMVEC-bFGF (lib13) > HMVEC (lib12)	4.98
854	Lung Tumor Tissue (lib24) > Normal Lung Tissue (lib23)	5.94

Key for Table 10: High Met = high metastatic potential; Low Met = low metastatic potential; met = metastasized; tumor = non-metastasized tumor; HMVEC = human microvascular endothelial cell; bFGF = bFGF treated.

Detection of expression of genes that correspond to the above polynucleotides may be of particular interest in diagnosis, prognosis, risk assesment, and monitoring of treatment. Furthermore, differential expression of a specific gene across multiple libraries can also be indicative of a gene whose expression is associated with, for example, suppression of the metastatic phenotype or with development of the cell toward a metastatic phenotype. For example, SEQ ID NO:209 corresponds to a gene that is expressed at relatively higher levels in colon tumor tissue than in high metastatic potential colon tumor tissue, and at relatively higher levels in high metastatic potential colon tumor tissue than in normal colon tissue. Thus a relatively increased level of expression of the gene corresponding to SEQ ID NO:209 may be used as marker of a pre-metastatic colon cells either alone or in combination with other markers.

Some polynucleotides exhibited opposite differential expression trends in libraries of different origin (see, *e.g.*., SEQ ID NO:316). These data suggest that the differential expressio

patterns of some gene associated with development of metastases indicate a unique role for those genes specific for the tissue of origin.

Those skilled in the art will recognize, or be able to ascertain, using not more than routine experimentation, many equivalents to the specific embodiments of the invention described herein. Such specific embodiments and equivalents are intended to be encompassed by the following claims.

All publications and patent applications cited in this specification are herein incorporated by reference as if each individual publication or patent application were specifically and individually indicated to be incorporated by reference. The citation of any publication is for its disclosure prior to the filing date and should not be construed as an admission that the present invention is not entitled to antedate such publication by virtue of prior invention.

Although the foregoing invention has been described in some detail by way of illustration and example for purposes of clarity of understanding, it is readily apparent to those of ordinary skill in the art in light of the teachings of this invention that certain changes and modifications may be made thereto without departing from the spirit or scope of the appended claims.

Deposit Information. The following materials were deposited with the American Type Culture Collection (CMCC = Chiron Master Culture Collection).

Table 11. Cell Lines Deposited with ATCC

Cell Line	**Deposit Date**	**ATCC Accession No.**	**CMCC Accession No.**
KM12L4-A	March 19, 1998	CRL-12496	11606
Km12C	May 15, 1998	CRL-12533	11611
MDA-MB-231	May 15, 1998	CRL-12532	10583
MCF-7	October 9, 1998	CRL-12584	10377

In addition, pools of selected clones, as well as libraries containing specific clones, were assigned an "ES" number (internal reference) and deposited with the ATCC. Table 21 below provides the ATCC Accession Nos. of the ES deposits, all of which were deposited on or before May 13, 1999. The names of the clones contained within each of these deposits are provided in the tables numbered 22 and greater (inserted before the claims).

Table 12: Pools of Clones and Libraries Deposited with ATCC on or before September 23, 1999

Library No.	CMCC No.	ATCC Deposit No.	Library No.	CMCC No.	ATCC Deposit No.
ES55	5058		ES65	5068	
ES56	5059		ES66	5069	
ES57	5060		ES67	5070	
ES58	5061		ES68	5071	
ES59	5062		ES69	5072	
ES60	5063		ES70	5073	
ES61	5064		ES71	5074	
ES62	5065		ES72	5075	
ES63	5066		ES73	5076	
ES64	5067		ES74	5077	

The deposits described herein are provided merely as convenience to those of skill in the art, and is not an admission that a deposit is required under 35 U.S.C. §112. The sequence of the polynucleotides contained within the deposited material, as well as the amino acid sequence of the polypeptides encoded thereby, are incorporated herein by reference and are controlling in the event of any conflict with the written description of sequences herein. A license may be required to make, use, or sell the deposited material, and no such license is granted hereby.

Retrieval of Individual Clones from Deposit of Pooled Clones. Where the ATCC deposit is composed of a pool of cDNA clones or a library of cDNA clones, the deposit was prepared by first transfecting each of the clones into separate bacterial cells. The clones in the pool or library were then deposited as a pool of equal mixtures in the composite deposit. Particular clones can be obtained from the composite deposit using methods well known in the art. For example, a bacterial cell containing a particular clone can be identified by isolating single colonies, and identifying colonies containing the specific clone through standard colony hybridization techniques, using an oligonucleotide probe or probes designed to specifically hybridize to a sequence of the clone insert (*e.g.*, a probe based upon unmasked sequence of the encoded polynucleotide having the indicated SEQ ID NO). The probe should be designed to have a T_m of approximately 80°C (assuming 2°C for each A or T and 4°C for each G or C). Positive colonies can then be picked, grown in culture, and the recombinant clone isolated. Alternatively, probes designed in this manner can be used to PCR to isolate a nucleic acid molecule from the pooled clones according to methods well known in the art, *e.g.*, by purifying the cDNA from the deposited culture pool, and using the probes in PCR reactions to produce an amplified product having the corresponding desired polynucleotide sequence.

Table 1A

SEQ ID NO:	Priority Appln Information Filed	Dkt No.	SEQ ID NO:	Sequence Name	Clone Name
1	9/28/98	1492.001	1	RTA00000617F.o.18.2	M00005513A:H01
2	9/28/98	1492.001	2	RTA00001075F.h.12.1	M00005434A:F11
3	9/28/98	1492.001	3	RTA00001076F.m.09.1	M00006946B:C08
4	9/28/98	1492.001	4	RTA00001075F.o.08.1	M00005628D:A10
5	9/28/98	1492.001	5	RTA00001064F.f.14.1	M00005465A:A07
6	9/28/98	1492.001	6	RTA00001075F.n.19.1	M00005614A:B07
7	9/28/98	1492.001	7	RTA00001075F.i.24.1	M00005453B:B06
8	9/28/98	1492.001	8	RTA00001075F.p.24.1	M00005721D:B03
9	9/28/98	1492.001	9	RTA00001075F.o.04.1	M00005621B:C09
10	9/28/98	1492.001	10	RTA00000616F.j.04.1	M00005412D:G07
11	9/28/98	1492.001	11	RTA00001064F.k.01.1	M00005708C:D11
12	9/28/98	1492.001	12	RTA00001064F.j.19.1	M00005657B:F11
13	9/28/98	1492.001	13	RTA00001065F.a.22.1	M00006920B:H07
14	9/28/98	1492.001	14	RTA00001076F.d.11.1	M00006623C:G07
15	9/28/98	1492.001	15	RTA00000615F.e.08.2	M00004872A:D07
16	9/28/98	1492.001	16	RTA00000617F.p.05.2	M00005515D:G02
17	9/28/98	1492.001	17	RTA00001076F.f.03.1	M00006668D:B10
18	9/28/98	1492.001	18	RTA00001064F.l.17.2	M00006582A:F12
19	9/28/98	1492.001	19	RTA00001076F.h.13.1	M00006745B:C05
20	9/28/98	1492.001	20	RTA00001075F.k.12.1	M00005482A:D08
21	9/28/98	1492.001	21	RTA00001076F.c.09.1	M00006594B:D05
22	9/28/98	1492.001	22	RTA00001076F.l.16.1	M00006919A:H12
23	9/28/98	1492.001	23	RTA00001076F.b.13.1	M00005825A:A10
24	9/28/98	1492.001	24	RTA00001065F.d.06.2	M00007078B:H04
25	9/28/98	1492.001	25	RTA00001075F.p.23.1	M00005721C:A12
26	9/28/98	1492.001	26	RTA00001075F.n.22.1	M00005616B:E11
27	9/28/98	1492.001	27	RTA00001075F.o.21.1	M00005648C:E10
28	9/28/98	1492.001	28	RTA00001065F.b.22.1	M00006968A:H05
29	9/28/98	1492.001	29	RTA00001075F.p.06.1	M00005698A:H12
30	9/28/98	1492.001	30	RTA00001076F.d.19.1	M00006630A:E05
31	9/28/98	1492.001	31	RTA00001075F.e.14.1	M00005375B:H03
32	9/28/98	1492.001	32	RTA00001065F.f.02.1	M00007186A:A12
33	9/28/98	1492.001	33	RTA00001064F.p.03.1	M00006814D:D09
34	9/28/98	1492.001	34	RTA00001076F.i.19.1	M00006813B:E04
35	9/28/98	1492.001	35	RTA00001077F.c.06.1	M00007157B:B04
36	9/28/98	1492.001	36	RTA00001064F.c.21.1	M00005366D:E12

37	9/28/98	1492.001	37	RTA00001065F.e.21.1	M00007177A:G07
38	9/28/98	1492.001	38	RTA00001076F.o.14.1	M00007038D:D01
39	9/28/98	1492.001	39	RTA00001064F.c.01.1	M00005327C:G08
40	9/28/98	1492.001	40	RTA00001064F.d.16.1	M00005397A:G08
41	9/28/98	1492.001	41	RTA00000615F.e.05.2	M00004870D:E05
42	9/28/98	1492.001	42	RTA00000616F.j.12.1	M00005413D:G12
43	9/28/98	1492.001	43	RTA00001075F.a.17.1	M00004852B:H08
44	9/28/98	1492.001	44	RTA00001076F.n.10.1	M00006989C:B01
45	9/28/98	1492.001	45	RTA00001075F.l.04.1	M00005505D:H08
46	9/28/98	1492.001	46	RTA00001075F.l.10.1	M00005509B:E10
47	9/28/98	1492.001	47	RTA00001075F.i.09.1	M00005444D:D01
48	9/28/98	1492.001	48	RTA00001075F.j.13.1	M00005464B:B08
49	9/28/98	1492.001	49	RTA00001076F.e.03.1	M00006635A:C01
50	9/28/98	1492.001	50	RTA00001076F.j.14.1	M00006837B:H12
51	9/28/98	1492.001	51	RTA00001075F.g.19.1	M00005418C:B09
52	9/28/98	1492.001	52	RTA00001075F.m.05.1	M00005538C:H11
53	9/28/98	1492.001	53	RTA00001076F.p.03.1	M00007046D:E10
54	9/28/98	1492.001	54	RTA00001075F.h.19.1	M00005435B:F01
55	9/28/98	1492.001	55	RTA00001075F.h.14.1	M00005434C:E02
56	9/28/98	1492.001	56	RTA00001076F.l.14.1	M00006917B:C05
57	9/28/98	1492.001	57	RTA00001075F.h.17.1	M00005434D:H02
58	9/28/98	1492.001	58	RTA00001075F.f.18.1	M00005396C:H04
59	9/28/98	1492.001	59	RTA00001076F.l.03.1	M00006894D:A07
60	9/28/98	1492.001	60	RTA00001065F.d.07.2	M00007079D:H01
61	9/28/98	1492.001	61	RTA00001075F.e.18.1	M00005377C:F07
62	9/28/98	1492.001	62	RTA00001065F.d.03.2	M00007065D:A03
63	9/28/98	1492.001	63	RTA00001076F.b.18.1	M00006577A:B01
64	9/28/98	1492.001	64	RTA00001075F.m.16.1	M00005569B:E04
65	9/28/98	1492.001	65	RTA00001076F.d.13.1	M00006627C:C02
66	9/28/98	1492.001	66	RTA00001076F.i.16.1	M00006805D:H12
67	9/28/98	1492.001	67	RTA00001076F.p.10.1	M00007064B:E09
68	9/28/98	1492.001	68	RTA00001064F.p.14.1	M00006835D:C08
69	9/28/98	1492.001	69	RTA00001077F.b.04.1	M00007126D:H01
70	9/28/98	1492.001	70	RTA00001076F.d.04.1	M00006619A:G11
71	9/28/98	1492.001	71	RTA00001077F.a.22.1	M00007121D:A11
72	9/28/98	1492.001	72	RTA00001077F.c.19.1	M00007178D:A10
73	9/28/98	1492.001	73	RTA00001065F.f.06.1	M00007197D:D12
74	9/28/98	1492.001	74	RTA00000616F.f.11.3	M00005395D:D11
75	9/28/98	1492.001	75	RTA00001064F.l.13.2	M00006577B:F01
76	9/28/98	1492.001	76	RTA00001064F.o.08.1	M00006757D:H04
77	9/28/98	1492.001	77	RTA00001075F.o.03.1	M00005621A:B05
78	9/28/98	1492.001	78	RTA00001064F.l.23.2	M00006596D:H02
79	9/28/98	1492.001	79	RTA00001076F.e.01.1	M00006631D:G09

80	9/28/98	1492.001	80	RTA00001075F.j.22.1	M00005473C:F02
81	9/28/98	1492.001	81	RTA00001076F.h.16.1	M00006757A:C09
82	9/28/98	1492.001	82	RTA00001075F.j.08.1	M00005459B:A01
83	9/28/98	1492.001	83	RTA00001064F.o.19.1	M00006795C:B12
84	9/28/98	1492.001	84	RTA00001064F.o.07.1	M00006756D:G07
85	9/28/98	1492.001	85	RTA00001076F.i.09.1	M00006790D:F10
86	9/28/98	1492.001	86	RTA00001076F.i.22.1	M00006815D:D11
87	9/28/98	1492.001	87	RTA00001076F.c.21.1	M00006613C:C02
88	9/28/98	1492.001	88	RTA00001076F.j.19.1	M00006846A:B03
89	9/28/98	1492.001	89	RTA00001064F.o.13.1	M00006779D:F03
90	9/28/98	1492.001	90	RTA00001077F.a.06.1	M00007101C:H01
91	9/28/98	1492.001	91	RTA00001064F.n.01.1	M00006664A:C05
92	9/28/98	1492.001	92	RTA00001064F.c.12.1	M00005358A:H03
93	9/28/98	1492.001	93	RTA00001077F.d.07.1	M00007196D:D02
94	9/28/98	1492.001	94	RTA00001077F.c.18.1	M00007177B:C02
95	9/28/98	1492.001	95	RTA00001064F.g.12.1	M00005490B:B02
96	9/28/98	1492.001	96	RTA00001075F.b.07.1	M00004866C:H08
97	9/28/98	1492.001	97	RTA00000617F.p.03.2	M00005515B:B08
98	9/28/98	1492.001	98	RTA00000616F.f.10.3	M00005395D:B12
99	9/28/98	1492.001	99	RTA00001064F.p.15.1	M00006840A:A12
100	9/28/98	1492.001	100	RTA00000617F.p.10.2	M00005516D:F12
101	9/28/98	1492.001	101	RTA00001076F.m.01.1	M00006925B:B02
102	9/28/98	1492.001	102	RTA00001075F.f.15.1	M00005395C:C11
103	9/28/98	1492.001	103	RTA00001075F.e.23.1	M00005385B:A10
104	9/28/98	1492.001	104	RTA00001076F.f.12.1	M00006688C:C12
105	9/28/98	1492.001	105	RTA00001075F.g.21.1	M00005420C:E03
106	9/28/98	1492.001	106	RTA00001076F.g.18.1	M00006727A:H12
107	9/28/98	1492.001	107	RTA00001075F.d.24.1	M00005363D:C05
108	9/28/98	1492.001	108	RTA00001075F.e.02.1	M00005364C:A02
109	9/28/98	1492.001	109	RTA00001075F.m.14.1	M00005563C:D05
110	9/28/98	1492.001	110	RTA00001064F.h.07.1	M00005520A:H11
111	9/28/98	1492.001	111	RTA00001065F.b.07.1	M00006936C:G11
112	9/28/98	1492.001	112	RTA00001065F.b.23.1	M00006968D:H02
113	9/28/98	1492.001	113	RTA00001064F.g.15.1	M00005497C:G08
114	9/28/98	1492.001	114	RTA00001064F.d.14.1	M00005390C:E05
115	9/28/98	1492.001	115	RTA00001064F.l.22.2	M00006595C:B08
116	9/28/98	1492.001	116	RTA00001064F.p.04.1	M00006816D:D08
117	9/28/98	1492.001	117	RTA00001076F.g.04.1	M00006712A:F01
118	9/28/98	1492.001	118	RTA00001075F.p.17.1	M00005709D:H05
119	9/28/98	1492.001	119	RTA00001075F.l.03.1	M00005505B:D10
120	9/28/98	1492.001	120	RTA00001076F.l.23.1	M00006925A:B09
121	9/28/98	1492.001	121	RTA00001076F.k.11.1	M00006874D:E01
122	9/28/98	1492.001	122	RTA00001076F.n.15.1	M00006994A:C12

123	9/28/98	1492.001	123	RTA00001075F.o.10.1	M00005629B:G06
124	9/28/98	1492.001	124	RTA00001075F.n.04.1	M00005589B:H12
125	9/28/98	1492.001	125	RTA00001075F.f.06.1	M00005388B:B02
126	9/28/98	1492.001	126	RTA00001076F.j.05.1	M00006823A:H06
127	9/28/98	1492.001	127	RTA00001076F.o.18.1	M00007041C:C05
128	9/28/98	1492.001	128	RTA00001064F.j.14.1	M00005648C:C11
129	9/28/98	1492.001	129	RTA00001064F.d.06.1	M00005376B:E08
130	9/28/98	1492.001	130	RTA00001077F.d.10.1	M00007200A:B12
131	9/28/98	1492.001	131	RTA00001065F.d.19.1	M00007109D:G01
132	9/28/98	1492.001	132	RTA00001064F.f.13.1	M00005464D:D07
133	9/28/98	1492.001	133	RTA00001075F.k.20.1	M00005493D:H12
134	9/28/98	1492.001	134	RTA00001075F.k.07.1	M00005479C:A05
135	9/28/98	1492.001	135	RTA00001075F.a.14.1	M00004847D:G01
136	9/28/98	1492.001	136	RTA00001076F.f.22.1	M00006704A:C11
137	9/28/98	1492.001	137	RTA00001076F.m.11.1	M00006949B:C07
138	9/28/98	1492.001	138	RTA00001064F.i.13.2	M00005618C:H11
139	9/28/98	1492.001	139	RTA00001076F.f.19.3	M00006694D:G06
140	9/28/98	1492.001	140	RTA00001076F.c.23.1	M00006617A:A06
141	9/28/98	1492.001	141	RTA00001077F.a.09.1	M00007107C:D02
142	9/28/98	1492.001	142	RTA00001064F.b.14.1	M00005020B:D10
143	9/28/98	1492.001	143	RTA00001075F.e.21.1	M00005382A:G09
144	9/28/98	1492.001	144	RTA00001075F.p.15.1	M00005705D:G09
145	9/28/98	1492.001	145	RTA00001076F.n.11.1	M00006991B:E05
146	9/28/98	1492.001	146	RTA00001065F.e.18.1	M00007161C:D12
147	9/28/98	1492.001	147	RTA00000615F.e.06.2	M00004871C:C04
148	9/28/98	1492.001	148	RTA00001064F.a.04.2	M00004821D:C03
149	9/28/98	1492.001	149	RTA00001075F.j.18.1	M00005469A:D10
150	9/28/98	1492.001	150	RTA00001077F.c.05.1	M00007156D:E11
151	9/28/98	1492.001	151	RTA00001075F.g.22.1	M00005420C:E10
152	9/28/98	1492.001	152	RTA00001077F.a.08.1	M00007104D:D10
153	9/28/98	1492.001	153	RTA00001077F.c.15.1	M00007172D:H03
154	9/28/98	1492.001	154	RTA00001077F.c.16.1	M00007175B:B11
155	9/28/98	1492.001	155	RTA00001077F.b.15.1	M00007141A:G08
156	9/28/98	1492.001	156	RTA00001077F.c.17.1	M00007175D:G02
157	9/28/98	1492.001	157	RTA00001077F.a.14.1	M00007116A:C08
158	9/28/98	1492.001	158	RTA00001075F.i.02.1	M00005438D:A08
159	9/28/98	1492.001	159	RTA00001075F.l.11.1	M00005509D:G05
160	9/28/98	1492.001	160	RTA00001064F.d.20.1	M00005403A:D12
161	9/28/98	1492.001	161	RTA00001076F.h.10.1	M00006740A:A06
162	9/28/98	1492.001	162	RTA00001075F.k.21.1	M00005494C:F08
163	9/28/98	1492.001	163	RTA00001075F.i.21.1	M00005450C:G09
164	9/28/98	1492.001	164	RTA00001076F.p.24.1	M00007093C:C11
165	9/28/98	1492.001	165	RTA00001075F.f.03.1	M00005385D:B08

166	9/28/98	1492.001	166	RTA00001065F.d.18.2	M00007107A:H08
167	9/28/98	1492.001	167	RTA00001076F.o.05.1	M00007026A:A03
168	9/28/98	1492.001	168	RTA00001075F.d.10.1	M00005353C:H01
169	9/28/98	1492.001	169	RTA00001064F.d.07.1	M00005378B:B04
170	9/28/98	1492.001	170	RTA00001065F.b.11.1	M00006945D:A07
171	9/28/98	1492.001	171	RTA00001076F.g.17.1	M00006726D:H10
172	9/28/98	1492.001	172	RTA00001065F.a.21.1	M00006918D:G08
173	9/28/98	1492.001	173	RTA00001077F.d.12.1	M00007203C:E06
174	9/28/98	1492.001	174	RTA00001064F.g.08.1	M00005481C:H05
175	9/28/98	1492.001	175	RTA00001064F.f.02.1	M00005449D:D04
176	9/28/98	1492.001	176	RTA00001075F.a.02.1	M00004825A:G12
177	9/28/98	1492.001	177	RTA00001064F.b.16.1	M00005296B:H07
178	9/28/98	1492.001	178	RTA00001077F.c.02.1	M00007152A:A10
179	9/28/98	1492.001	179	RTA00001064F.g.04.1	M00005480C:A04
180	9/28/98	1492.001	180	RTA00001075F.c.12.1	M00005305A:H01
181	9/28/98	1492.001	181	RTA00001064F.o.04.1	M00006752C:D04
182	9/28/98	1492.001	182	RTA00001077F.a.21.1	M00007121A:G04
183	9/28/98	1492.001	183	RTA00001075F.f.11.1	M00005392C:B03
184	9/28/98	1492.001	184	RTA00001064F.k.24.2	M00005820A:H11
185	9/28/98	1492.001	185	RTA00001075F.d.02.1	M00005342D:E04
186	9/28/98	1492.001	186	RTA00001076F.c.13.1	M00006600D:G07
187	9/28/98	1492.001	187	RTA00001075F.b.15.1	M00004872C:G03
188	9/28/98	1492.001	188	RTA00001064F.f.09.1	M00005461C:D11
189	9/28/98	1492.001	189	RTA00001075F.g.14.1	M00005416B:A01
190	9/28/98	1492.001	190	RTA00001075F.f.17.1	M00005396A:C01
191	9/28/98	1492.001	191	RTA00001076F.l.05.1	M00006895D:A02
192	9/28/98	1492.001	192	RTA00001076F.o.02.1	M00007019B:G01
193	9/28/98	1492.001	193	RTA00001064F.b.07.1	M00005000A:H05
194	9/28/98	1492.001	194	RTA00001075F.d.17.1	M00005358B:D10
195	9/28/98	1492.001	195	RTA00000624F.f.12.2	M00005607A:C08
196	9/28/98	1492.001	196	RTA00001075F.c.22.1	M00005342B:G01
197	9/28/98	1492.001	197	RTA00001065F.a.17.1	M00006914C:D07
198	9/28/98	1492.001	198	RTA00001075F.b.02.1	M00004859D:D01
199	9/28/98	1492.001	199	RTA00001077F.c.12.1	M00007167C:B10
200	9/28/98	1492.001	200	RTA00001077F.c.20.1	M00007179B:H04
201	9/28/98	1492.001	201	RTA00001076F.m.04.1	M00006934B:B11
202	9/28/98	1492.001	202	RTA00001076F.j.22.1	M00006859D:E11
203	9/28/98	1492.001	203	RTA00001076F.k.13.1	M00006882C:D03
204	9/28/98	1492.001	204	RTA00001075F.k.14.1	M00005485C:F09
205	9/28/98	1492.001	205	RTA00001076F.f.10.1	M00006680D:A01
206	9/28/98	1492.001	206	RTA00001064F.o.05.1	M00006755C:C03
207	9/28/98	1492.001	207	RTA00001064F.l.05.2	M00005826B:F10
208	9/28/98	1492.001	208	RTA00001076F.p.04.1	M00007047D:C02

209	9/28/98	1492.001	209	RTA00001064F.l.04.1	M00005822D:C05
210	9/28/98	1492.001	210	RTA00001076F.c.03.1	M00006584D:D01
211	9/28/98	1492.001	211	RTA00001064F.m.06.1	M00006621B:B06
212	9/28/98	1492.001	212	RTA00001075F.k.15.1	M00005486A:F07
213	9/28/98	1492.001	213	RTA00001064F.d.08.1	M00005378C:B12
214	9/28/98	1492.001	214	RTA00001077F.d.11.1	M00007202A:A09
215	9/28/98	1492.001	215	RTA00001077F.b.14.1	M00007140C:G12
216	9/28/98	1492.001	216	RTA00001075F.k.04.1	M00005476D:A11
217	9/28/98	1492.001	217	RTA00001064F.n.03.1	M00006678C:B07
218	9/28/98	1492.001	218	RTA00001075F.i.12.1	M00005446B:D10
219	9/28/98	1492.001	219	RTA00001075F.f.04.1	M00005386C:G01
220	9/28/98	1492.001	220	RTA00001076F.n.14.1	M00006993B:F02
221	9/28/98	1492.001	221	RTA00001064F.k.19.2	M00005810B:C07
222	9/28/98	1492.001	222	RTA00001076F.d.20.1	M00006630A:E09
223	9/28/98	1492.001	223	RTA00001077F.b.20.1	M00007145C:B05
224	9/28/98	1492.001	224	RTA00001076F.f.11.1	M00006688A:F09
225	9/28/98	1492.001	225	RTA00001065F.d.01.1	M00007047C:H04
226	9/28/98	1492.001	226	RTA00001075F.g.12.1	M00005413B:B02
227	9/28/98	1492.001	227	RTA00001064F.a.09.2	M00004841C:H03
228	9/28/98	1492.001	228	RTA00001064F.k.20.2	M00005810B:G02
229	9/28/98	1492.001	229	RTA00001064F.b.17.1	M00005296D:G03
230	9/28/98	1493.001	1	RTA00001073F.f.17.1	M00004087A:H06
231	9/28/98	1493.001	2	RTA00001073F.l.02.1	M00004168D:F05
232	9/28/98	1493.001	3	RTA00001072F.i.07.3	M00003845B:A04
233	9/28/98	1493.001	4	RTA00001071F.i.23.3	M00001477A:G02
234	9/28/98	1493.001	5	RTA00000611F.e.04.2	M00004170C:H06
235	9/28/98	1493.001	6	RTA00001062F.f.19.1	M00003888C:G08
236	9/28/98	1493.001	7	RTA00001073F.l.22.1	M00004176B:H09
237	9/28/98	1493.001	8	RTA00001063F.l.10.1	M00004410A:F06
238	9/28/98	1493.001	9	RTA00001062F.l.13.1	M00004034A:A05
239	9/28/98	1493.001	10	RTA00001074F.l.10.1	M00004495D:A05
240	9/28/98	1493.001	11	RTA00001061F.d.01.1	M00001389C:E01
241	9/28/98	1493.001	12	RTA00001072F.j.04.2	M00003861D:G10
242	9/28/98	1493.001	13	RTA00001073F.d.04.1	M00004048C:C02
243	9/28/98	1493.001	14	RTA00001061F.j.09.1	M00001507A:H06
244	9/28/98	1493.001	15	RTA00001071F.h.16.1	M00001450D:H12
245	9/28/98	1493.001	16	RTA00001062F.o.17.1	M00004108B:D04
246	9/28/98	1493.001	17	RTA00001073F.c.20.1	M00004046C:A04
247	9/28/98	1493.001	18	RTA00001063F.k.14.1	M00004381A:E10
248	9/28/98	1493.001	19	RTA00000611F.e.18.2	M00004171D:H10
249	9/28/98	1493.001	20	RTA00001072F.a.18.2	M00001655C:F07
250	9/28/98	1493.001	21	RTA00001072F.b.04.2	M00001660A:B10
251	9/28/98	1493.001	22	RTA00001074F.g.19.1	M00004372A:A08

252	9/28/98	1493.001	23	RTA00001072F.i.09.3	M00003845C:F08
253	9/28/98	1493.001	24	RTA00001072F.a.21.2	M00001657D:D07
254	9/28/98	1493.001	25	RTA00001072F.m.18.3	M00003916D:A10
255	9/28/98	1493.001	26	RTA00001061F.b.04.1	M00001360B:F09
256	9/28/98	1493.001	27	RTA00001072F.o.06.2	M00003935A:C04
257	9/28/98	1493.001	28	RTA00001072F.n.19.3	M00003931A:G01
258	9/28/98	1493.001	29	RTA00001073F.e.08.1	M00004068A:A03
259	9/28/98	1493.001	30	RTA00001074F.g.22.1	M00004373D:G10
260	9/28/98	1493.001	31	RTA00001073F.c.01.1	M00004030C:E05
261	9/28/98	1493.001	32	RTA00001074F.f.15.1	M00004360B:B08
262	9/28/98	1493.001	33	RTA00001074F.f.01.1	M00004350A:C04
263	9/28/98	1493.001	34	RTA00001074F.d.08.1	M00004318D:D07
264	9/28/98	1493.001	35	RTA00001072F.f.11.2	M00003788D:E06
265	9/28/98	1493.001	36	RTA00001074F.e.05.1	M00004337A:A07
266	9/28/98	1493.001	37	RTA00001072F.g.05.2	M00003803B:G12
267	9/28/98	1493.001	38	RTA00001071F.j.04.3	M00001479D:B10
268	9/28/98	1493.001	39	RTA00001074F.j.05.1	M00004415A:A01
269	9/28/98	1493.001	40	RTA00001074F.j.04.1	M00004414D:C11
270	9/28/98	1493.001	41	RTA00001073F.e.06.1	M00004067C:C10
271	9/28/98	1493.001	42	RTA00001071F.d.14.1	M00001389A:F03
272	9/28/98	1493.001	43	RTA00001071F.f.12.1	M00001418C:F06
273	9/28/98	1493.001	44	RTA00001061F.m.13.1	M00001601D:A03
274	9/28/98	1493.001	45	RTA00001061F.e.17.1	M00001418A:A02
275	9/28/98	1493.001	46	RTA00001071F.m.09.3	M00001563A:F04
276	9/28/98	1493.001	47	RTA00001062F.l.05.1	M00004029D:H03
277	9/28/98	1493.001	48	RTA00001073F.i.02.2	M00004125B:A02
278	9/28/98	1493.001	49	RTA00001063F.l.04.1	M00004404C:B03
279	9/28/98	1493.001	50	RTA00001063F.l.14.1	M00004412A:G05
280	9/28/98	1493.001	51	RTA00001063F.e.05.1	M00004232D:G11
281	9/28/98	1493.001	52	RTA00001062F.f.06.1	M00003880A:G10
282	9/28/98	1493.001	53	RTA00001072F.b.23.2	M00001683B:F12
283	9/28/98	1493.001	54	RTA00001073F.a.13.1	M00003989D:A02
284	9/28/98	1493.001	55	RTA00001074F.h.16.1	M00004386C:C03
285	9/28/98	1493.001	56	RTA00001073F.a.15.1	M00003991A:D05
286	9/28/98	1493.001	57	RTA00001073F.k.01.1	M00004152A:F03
287	9/28/98	1493.001	58	RTA00001072F.l.19.2	M00003901B:C02
288	9/28/98	1493.001	59	RTA00001072F.i.15.3	M00003848A:E08
289	9/28/98	1493.001	60	RTA00001072F.i.05.3	M00003844D:B02
290	9/28/98	1493.001	61	RTA00001074F.m.06.1	M00004603D:D09
291	9/28/98	1493.001	62	RTA00001062F.m.15.1	M00004063B:B12
292	9/28/98	1493.001	63	RTA00001074F.d.19.1	M00004326D:D06
293	9/28/98	1493.001	64	RTA00001073F.j.02.1	M00004140B:C02
294	9/28/98	1493.001	65	RTA00001071F.l.11.1	M00001545D:F12

295	9/28/98	1493.001	66	RTA00001074F.f.12.1	M00004356C:D02
296	9/28/98	1493.001	67	RTA00001073F.h.03.1	M00004110A:G03
297	9/28/98	1493.001	68	RTA00001074F.a.19.1	M00004275A:H07
298	9/28/98	1493.001	69	RTA00001063F.g.15.1	M00004292A:C08
299	9/28/98	1493.001	70	RTA00001061F.a.09.1	M00001345C:B10
300	9/28/98	1493.001	71	RTA00001063F.f.23.1	M00004284A:C09
301	9/28/98	1493.001	72	RTA00001073F.e.10.1	M00004069A:E04
302	9/28/98	1493.001	73	RTA00001073F.g.15.1	M00004103A:E06
303	9/28/98	1493.001	74	RTA00001073F.n.20.1	M00004209B:G01
304	9/28/98	1493.001	75	RTA00001073F.g.11.1	M00004099C:F04
305	9/28/98	1493.001	76	RTA00001071F.p.05.1	M00001630A:E08
306	9/28/98	1493.001	77	RTA00001073F.l.19.1	M00004175D:D05
307	9/28/98	1493.001	78	RTA00001074F.j.17.1	M00004426B:H06
308	9/28/98	1493.001	79	RTA00001074F.b.22.1	M00004292A:F03
309	9/28/98	1493.001	80	RTA00001071F.d.19.1	M00001391C:B05
310	9/28/98	1493.001	81	RTA00001062F.j.02.1	M00003960D:E09
311	9/28/98	1493.001	82	RTA00001072F.b.09.2	M00001664D:E02
312	9/28/98	1493.001	83	RTA00001073F.b.08.1	M00003998C:D04
313	9/28/98	1493.001	84	RTA00001062F.j.19.1	M00003977D:H04
314	9/28/98	1493.001	85	RTA00001062F.m.18.1	M00004066D:C02
315	9/28/98	1493.001	86	RTA00001062F.b.02.1	M00003775C:C01
316	9/28/98	1493.001	87	RTA00001061F.d.20.1	M00001401B:A02
317	9/28/98	1493.001	88	RTA00001071F.n.05.3	M00001579C:E07
318	9/28/98	1493.001	89	RTA00001073F.l.04.1	M00004170B:G04
319	9/28/98	1493.001	90	RTA00001071F.h.04.1	M00001442D:D09
320	9/28/98	1493.001	91	RTA00001062F.o.11.1	M00004104C:F06
321	9/28/98	1493.001	92	RTA00001062F.i.10.1	M00003939B:C02
322	9/28/98	1493.001	93	RTA00001071F.g.16.1	M00001431A:F03
323	9/28/98	1493.001	94	RTA00001061F.d.06.1	M00001392A:F02
324	9/28/98	1493.001	95	RTA00001071F.m.01.3	M00001561A:G10
325	9/28/98	1493.001	96	RTA00001062F.n.06.1	M00004081A:E11
326	9/28/98	1493.001	97	RTA00001061F.d.14.1	M00001397D:G04
327	9/28/98	1493.001	98	RTA00001061F.j.10.1	M00001507D:F09
328	9/28/98	1493.001	99	RTA00001063F.c.07.1	M00004185B:H03
329	9/28/98	1493.001	100	RTA00001061F.j.12.1	M00001513B:F05
330	9/28/98	1493.001	101	RTA00001061F.o.22.1	M00001678A:B10
331	9/28/98	1493.001	102	RTA00001071F.e.03.1	M00001395D:B04
332	9/28/98	1493.001	103	RTA00001072F.e.13.2	M00003772C:F12
333	9/28/98	1493.001	104	RTA00001062F.i.03.1	M00003928D:A04
334	9/28/98	1493.001	105	RTA00001072F.d.20.2	M00003761C:C05
335	9/28/98	1493.001	106	RTA00001074F.g.16.1	M00004371B:A05
336	9/28/98	1493.001	107	RTA00001074F.f.09.1	M00004353D:C06
337	9/28/98	1493.001	108	RTA00001071F.k.12.1	M00001505C:C10

338	9/28/98	1493.001	109	RTA00001074F.f.13.1	M00004357A:B10
339	9/28/98	1493.001	110	RTA00001071F.e.08.1	M00001397C:F01
340	9/28/98	1493.001	111	RTA00001073F.h.11.1	M00004117D:F06
341	9/28/98	1493.001	112	RTA00001072F.o.14.2	M00003937D:F09
342	9/28/98	1493.001	113	RTA00001074F.c.11.1	M00004298A:H09
343	9/28/98	1493.001	114	RTA00001074F.g.08.1	M00004368A:G11
344	9/28/98	1493.001	115	RTA00001073F.a.18.1	M00003993C:G11
345	9/28/98	1493.001	116	RTA00001073F.f.19.1	M00004090A:B11
346	9/28/98	1493.001	117	RTA00001072F.l.20.2	M00003902C:D02
347	9/28/98	1493.001	118	RTA00001073F.b.06.1	M00003997D:G03
348	9/28/98	1493.001	119	RTA00001062F.o.14.1	M00004105C:C05
349	9/28/98	1493.001	120	RTA00001071F.i.04.3	M00001457D:E08
350	9/28/98	1493.001	121	RTA00001074F.a.23.1	M00004278C:H11
351	9/28/98	1493.001	122	RTA00001073F.c.04.1	M00004034A:G03
352	9/28/98	1493.001	123	RTA00001072F.h.18.2	M00003833D:F11
353	9/28/98	1493.001	124	RTA00001074F.i.06.1	M00004403A:A02
354	9/28/98	1493.001	125	RTA00001063F.e.09.1	M00004240A:D03
355	9/28/98	1493.001	126	RTA00001061F.d.03.1	M00001390C:H05
356	9/28/98	1493.001	127	RTA00001063F.d.23.1	M00004225A:E03
357	9/28/98	1493.001	128	RTA00001063F.k.08.1	M00004378A:H10
358	9/28/98	1493.001	129	RTA00001062F.b.04.1	M00003776B:F08
359	9/28/98	1493.001	130	RTA00001063F.b.18.1	M00004178B:F07
360	9/28/98	1493.001	131	RTA00001062F.b.11.1	M00003788B:C08
361	9/28/98	1493.001	132	RTA00001074F.l.23.1	M00004504C:G07
362	9/28/98	1493.001	133	RTA00001063F.m.08.1	M00004444C:H11
363	9/28/98	1493.001	134	RTA00001071F.l.13.2	M00001549C:F10
364	9/28/98	1493.001	135	RTA00001072F.p.19.2	M00003973A:D09
365	9/28/98	1493.001	136	RTA00001071F.k.17.1	M00001517C:A10
366	9/28/98	1493.001	137	RTA00001072F.o.24.2	M00003943B:C12
367	9/28/98	1493.001	138	RTA00001074F.a.20.1	M00004276A:C06
368	9/28/98	1493.001	139	RTA00001073F.c.16.1	M00004043C:A06
369	9/28/98	1493.001	140	RTA00001074F.j.10.1	M00004422C:A01
370	9/28/98	1493.001	141	RTA00001063F.n.16.1	M00004498D:F02
371	9/28/98	1493.001	142	RTA00001071F.o.16.1	M00001615A:D01
372	9/28/98	1493.001	143	RTA00001073F.k.16.1	M00004165D:H12
373	9/28/98	1493.001	144	RTA00001062F.e.14.1	M00003856A:H10
374	9/28/98	1493.001	145	RTA00001071F.h.22.1	M00001454D:H09
375	9/28/98	1493.001	146	RTA00001071F.o.18.1	M00001618C:E01
376	9/28/98	1493.001	147	RTA00001062F.p.19.1	M00004140D:E03
377	9/28/98	1493.001	148	RTA00001062F.d.04.1	M00003818C:D02
378	9/28/98	1493.001	149	RTA00001072F.n.22.3	M00003933A:B04
379	9/28/98	1493.001	150	RTA00001063F.c.11.1	M00004187A:B05
380	9/28/98	1493.001	151	RTA00001061F.j.22.1	M00001531B:A03

381	9/28/98	1493.001	152	RTA00001062F.d.08.1	M00003820C:E08
382	9/28/98	1493.001	153	RTA00001062F.f.02.1	M00003877C:G01
383	9/28/98	1493.001	154	RTA00001062F.d.24.1	M00003839D:C03
384	9/28/98	1493.001	155	RTA00001074F.h.24.1	M00004391C:F12
385	9/28/98	1493.001	156	RTA00001071F.a.10.1	M00001341A:H10
386	9/28/98	1493.001	157	RTA00001074F.k.13.1	M00004449B:B05
387	9/28/98	1493.001	158	RTA00001072F.k.16.2	M00003884C:G09
388	9/28/98	1493.001	159	RTA00001073F.k.09.1	M00004158C:B01
389	9/28/98	1493.001	160	RTA00001074F.b.14.1	M00004288D:E07
390	9/28/98	1493.001	161	RTA00001073F.k.08.1	M00004157C:E06
391	9/28/98	1493.001	162	RTA00001074F.i.17.1	M00004406D:E11
392	9/28/98	1493.001	163	RTA00001074F.k.10.1	M00004447A:A10
393	9/28/98	1493.001	164	RTA00001062F.p.14.1	M00004135D:D01
394	9/28/98	1493.001	165	RTA00001071F.m.15.3	M00001569A:H01
395	9/28/98	1493.001	166	RTA00001074F.h.15.1	M00004385D:D06
396	9/28/98	1493.001	167	RTA00001062F.i.09.1	M00003935D:E04
397	9/28/98	1493.001	168	RTA00000611F.e.06.2	M00004170D:C06
398	9/28/98	1493.001	169	RTA00001062F.d.19.1	M00003835B:C05
399	9/28/98	1493.001	170	RTA00001062F.o.15.1	M00004107A:E02
400	9/28/98	1493.001	171	RTA00001071F.a.07.1	M00001340C:A08
401	9/28/98	1493.001	172	RTA00001062F.d.07.1	M00003820B:G04
402	9/28/98	1493.001	173	RTA00001074F.j.11.1	M00004423A:B05
403	9/28/98	1493.001	174	RTA00001071F.m.11.3	M00001565C:F06
404	9/28/98	1493.001	175	RTA00001062F.i.01.1	M00003926A:D01
405	9/28/98	1493.001	176	RTA00001072F.g.08.2	M00003804D:F12
406	9/28/98	1493.001	177	RTA00001071F.n.16.1	M00001594A:H01
407	9/28/98	1493.001	178	RTA00001062F.a.09.1	M00003756D:B09
408	9/28/98	1493.001	179	RTA00001073F.h.08.1	M00004114C:B09
409	9/28/98	1493.001	180	RTA00001073F.e.03.1	M00004064B:G03
410	9/28/98	1493.001	181	RTA00001073F.c.23.1	M00004048A:E10
411	9/28/98	1493.001	182	RTA00001074F.l.15.1	M00004498D:A11
412	9/28/98	1493.001	183	RTA00001073F.l.21.1	M00004176A:H05
413	9/28/98	1493.001	184	RTA00001071F.d.15.1	M00001389B:B12
414	9/28/98	1493.001	185	RTA00001073F.i.08.1	M00004127C:C08
415	9/28/98	1493.001	186	RTA00001073F.k.21.1	M00004167A:H04
416	9/28/98	1493.001	187	RTA00001072F.j.05.2	M00003865B:D10
417	9/28/98	1493.001	188	RTA00001063F.i.15.1	M00004335A:G05
418	9/28/98	1493.001	189	RTA00001062F.g.21.1	M00003907C:D02
419	9/28/98	1493.001	190	RTA00001073F.b.16.1	M00004027C:E06
420	9/28/98	1493.001	191	RTA00001062F.g.06.1	M00003895C:F05
421	9/28/98	1493.001	192	RTA00001071F.b.17.1	M00001360B:B01
422	9/28/98	1493.001	193	RTA00001073F.f.18.1	M00004087B:D05
423	9/28/98	1493.001	194	RTA00001074F.b.04.1	M00004280D:D10

424	9/28/98	1493.001	195	RTA00001072F.d.23.2	M00003762D:C02
425	9/28/98	1493.001	196	RTA00001073F.l.14.1	M00004173A:D03
426	9/28/98	1493.001	197	RTA00001061F.p.21.1	M00003747C:G12
427	9/28/98	1493.001	198	RTA00001071F.n.22.1	M00001598C:F02
428	9/28/98	1493.001	199	RTA00001073F.d.22.1	M00004059D:A09
429	9/28/98	1493.001	200	RTA00001072F.j.14.2	M00003876C:G11
430	9/28/98	1493.001	201	RTA00001071F.k.21.2	M00001528D:B12
431	9/28/98	1493.001	202	RTA00001074F.a.09.1	M00004269C:B10
432	9/28/98	1493.001	203	RTA00001073F.p.19.1	M00004253A:E02
433	9/28/98	1493.001	204	RTA00001061F.b.02.1	M00001358B:F12
434	9/28/98	1493.001	205	RTA00001063F.e.10.1	M00004240C:A06
435	9/28/98	1493.001	206	RTA00001074F.j.18.1	M00004427D:H04
436	9/28/98	1493.001	207	RTA00001073F.f.09.1	M00004084C:F05
437	9/28/98	1493.001	208	RTA00001071F.l.19.1	M00001558D:E02
438	9/28/98	1493.001	209	RTA00001073F.c.09.1	M00004036B:C11
439	9/28/98	1493.001	210	RTA00001074F.a.14.1	M00004270C:H05
440	9/28/98	1493.001	211	RTA00001074F.l.03.1	M00004466A:E04
441	9/28/98	1493.001	212	RTA00000611F.f.13.2	M00004175D:G10
442	9/28/98	1493.001	213	RTA00001074F.e.16.1	M00004343A:G07
443	9/28/98	1493.001	214	RTA00001073F.l.05.1	M00004170C:A12
444	9/28/98	1493.001	215	RTA00001074F.e.19.1	M00004347A:F10
445	9/28/98	1493.001	216	RTA00001073F.e.07.1	M00004067C:E05
446	9/28/98	1493.001	217	RTA00001062F.p.22.1	M00004142C:A06
447	9/28/98	1493.001	218	RTA00001061F.c.11.1	M00001382D:F03
448	9/28/98	1493.001	219	RTA00001062F.f.01.1	M00003877C:A08
449	9/28/98	1493.001	220	RTA00001072F.l.09.2	M00003893A:D03
450	9/28/98	1493.001	221	RTA00001072F.i.14.2	M00003847B:H01
451	9/28/98	1493.001	222	RTA00001063F.g.18.1	M00004295A:C02
452	9/28/98	1493.001	223	RTA00001062F.j.18.1	M00003977C:D01
453	9/28/98	1493.001	224	RTA00001061F.b.05.1	M00001360D:C12
454	9/28/98	1493.001	225	RTA00001074F.e.18.1	M00004344B:C06
455	9/28/98	1493.001	226	RTA00001061F.o.20.1	M00001677B:G01
456	9/28/98	1493.001	227	RTA00001062F.d.10.1	M00003822A:D02
457	9/28/98	1493.001	228	RTA00001062F.h.16.1	M00003919D:F01
458	9/28/98	1493.001	229	RTA00001063F.e.19.1	M00004251B:H12
459	9/28/98	1493.001	230	RTA00001061F.o.18.1	M00001675C:F05
460	9/28/98	1493.001	231	RTA00001072F.j.20.2	M00003879D:A09
461	9/28/98	1493.001	232	RTA00001071F.j.15.3	M00001485A:C04
462	9/28/98	1493.001	233	RTA00001071F.a.09.1	M00001340C:D09
463	9/28/98	1493.001	234	RTA00001074F.j.13.1	M00004423C:F03
464	9/28/98	1493.001	235	RTA00001071F.i.15.3	M00001466C:H11
465	9/28/98	1493.001	236	RTA00001071F.b.13.1	M00001358C:D09
466	9/28/98	1493.001	237	RTA00001061F.g.05.1	M00001441D:G02

467	9/28/98	1493.001	238	RTA00001063F.e.16.1	M00004249A:C09
468	9/28/98	1493.001	239	RTA00001072F.j.22.2	M00003880B:B08
469	9/28/98	1493.001	240	RTA00001063F.i.16.1	M00004335D:D03
470	9/28/98	1493.001	241	RTA00000611F.f.05.2	M00004174B:B12
471	9/28/98	1493.001	242	RTA00001071F.p.07.1	M00001631D:G08
472	9/28/98	1493.001	243	RTA00001071F.c.12.1	M00001375C:C11
473	9/28/98	1493.001	244	RTA00001074F.k.15.1	M00004450A:G07
474	9/28/98	1493.001	245	RTA00001061F.e.19.1	M00001419A:E01
475	9/28/98	1493.001	246	RTA00001073F.g.22.1	M00004108C:D07
476	9/28/98	1493.001	247	RTA00001061F.g.01.1	M00001437D:A12
477	9/28/98	1493.001	248	RTA00001072F.n.08.2	M00003923D:A03
478	9/28/98	1493.001	249	RTA00001074F.b.12.1	M00004286D:D02
479	9/28/98	1493.001	250	RTA00001061F.l.18.1	M00001576C:E03
480	9/28/98	1493.001	251	RTA00001074F.j.03.1	M00004414D:A01
481	9/28/98	1493.001	252	RTA00001072F.h.07.2	M00003824A:B11
482	9/28/98	1493.001	253	RTA00001072F.j.18.2	M00003877C:C11
483	9/28/98	1493.001	254	RTA00001063F.c.21.1	M00004198B:G08
484	9/28/98	1493.001	255	RTA00001073F.m.11.1	M00004181A:B05
485	9/28/98	1493.001	256	RTA00001061F.h.16.1	M00001463C:E12
486	9/28/98	1493.001	257	RTA00001073F.i.11.1	M00004128B:H11
487	9/28/98	1493.001	258	RTA00001062F.k.20.1	M00003997A:C08
488	9/28/98	1493.001	259	RTA00001062F.o.05.1	M00004101A:C12
489	9/28/98	1493.001	260	RTA00001073F.p.01.1	M00004237B:G01
490	9/28/98	1493.001	261	RTA00001072F.a.04.2	M00001647D:A02
491	9/28/98	1493.001	262	RTA00001073F.e.12.1	M00004071C:B06
492	9/28/98	1493.001	263	RTA00001073F.p.22.1	M00004253D:D04
493	9/28/98	1493.001	264	RTA00001072F.i.19.3	M00003853C:A09
494	9/28/98	1493.001	265	RTA00001071F.d.06.1	M00001386B:E01
495	9/28/98	1493.001	266	RTA00001073F.j.20.1	M00004149C:D11
496	9/28/98	1493.001	267	RTA00001074F.l.20.1	M00004502B:G05
497	9/28/98	1493.001	268	RTA00001072F.h.14.2	M00003829C:G07
498	9/28/98	1493.001	269	RTA00001062F.b.13.1	M00003788C:C05
499	9/28/98	1493.001	270	RTA00001061F.j.14.1	M00001514B:C02
500	9/28/98	1493.001	271	RTA00001072F.j.11.2	M00003870C:H03
501	9/28/98	1493.001	272	RTA00001074F.m.01.1	M00004507A:F11
502	9/28/98	1493.001	273	RTA00001063F.f.03.1	M00004264B:F03
503	9/28/98	1493.001	274	RTA00001071F.l.21.1	M00001559D:E02
504	9/28/98	1493.001	275	RTA00001072F.b.11.2	M00001669B:H04
505	9/28/98	1493.001	276	RTA00001074F.i.16.1	M00004406A:H12
506	9/28/98	1493.001	277	RTA00001061F.j.03.1	M00001500A:A02
507	9/28/98	1493.001	278	RTA00001062F.n.16.1	M00004085B:D12
508	9/28/98	1493.001	279	RTA00001073F.j.03.1	M00004140C:D04
509	9/28/98	1493.001	280	RTA00001072F.k.01.2	M00003880C:D06

510	9/28/98	1493.001	281	RTA00001074F.k.08.1	M00004445D:A04
511	9/28/98	1493.001	282	RTA00001062F.k.05.1	M00003985B:F06
512	9/28/98	1493.001	283	RTA00001073F.h.01.1	M00004109A:B07
513	9/28/98	1493.001	284	RTA00000611F.f.15.2	M00004176A:E07
514	9/28/98	1493.001	285	RTA00001073F.b.01.1	M00003995B:C06
515	9/28/98	1493.001	286	RTA00001072F.c.16.2	M00001694B:H12
516	9/28/98	1493.001	287	RTA00001073F.c.10.1	M00004036C:E10
517	9/28/98	1493.001	288	RTA00001062F.g.22.1	M00003908C:C04
518	9/28/98	1493.001	289	RTA00001074F.d.15.1	M00004323B:G12
519	9/28/98	1493.001	290	RTA00001061F.c.12.1	M00001383C:C04
520	9/28/98	1493.001	291	RTA00001073F.k.15.1	M00004165B:E03
521	9/28/98	1493.001	292	RTA00001072F.j.23.2	M00003880B:D03
522	9/28/98	1493.001	293	RTA00001073F.j.21.1	M00004150A:B09
523	9/28/98	1493.001	294	RTA00001073F.h.20.1	M00004123B:G05
524	9/28/98	1493.001	295	RTA00001063F.g.05.1	M00004285C:B06
525	9/28/98	1493.001	296	RTA00001061F.a.21.1	M00001352D:A09
526	9/28/98	1493.001	297	RTA00001061F.d.17.1	M00001399B:C04
527	9/28/98	1493.001	298	RTA00001072F.h.04.2	M00003819D:B02
528	9/29/98	1494.001	1	RTA00001082F.j.11.1	M00027137D:F05
529	9/29/98	1494.001	2	RTA00001082F.h.08.1	M00027042D:E02
530	9/29/98	1494.001	3	RTA00001082F.e.15.1	M00026936D:D01
531	9/29/98	1494.001	4	RTA00001082F.l.21.1	M00027204B:A08
532	9/29/98	1494.001	5	RTA00001082F.e.05.1	M00026910C:C05
533	9/29/98	1494.001	6	RTA00001082F.i.07.1	M00027085C:H12
534	9/29/98	1494.001	7	RTA00001082F.i.12.1	M00027096B:A01
535	9/29/98	1494.001	8	RTA00001082F.m.12.1	M00027218C:D06
536	9/29/98	1494.001	9	RTA00001082F.p.16.1	M00027364D:E08
537	9/29/98	1494.001	10	RTA00001082F.g.22.1	M00027028B:C12
538	9/29/98	1494.001	11	RTA00001069F.e.20.1	M00026857A:F02
539	9/29/98	1494.001	12	RTA00001082F.c.05.3	M00026811A:H01
540	9/29/98	1494.001	13	RTA00001083F.c.15.1	M00027529B:B11
541	9/29/98	1494.001	14	RTA00001082F.f.08.1	M00026964C:H02
542	9/29/98	1494.001	15	RTA00001082F.o.01.1	M00027280D:H01
543	9/29/98	1494.001	16	RTA00001082F.l.05.1	M00027190B:F06
544	9/29/98	1494.001	17	RTA00001082F.l.10.1	M00027196A:A10
545	9/29/98	1494.001	18	RTA00001069F.i.06.1	M00026972A:F04
546	9/29/98	1494.001	19	RTA00001082F.o.21.1	M00027339D:E10
547	9/29/98	1494.001	20	RTA00001069F.c.13.1	M00023390A:C04
548	9/29/98	1494.001	21	RTA00001069F.g.11.1	M00026914C:H10
549	9/29/98	1494.001	22	RTA00001082F.e.21.1	M00026945B:C10
550	9/29/98	1494.001	23	RTA00001083F.a.18.1	M00027396C:B06
551	9/29/98	1494.001	24	RTA00001069F.a.21.1	M00023298B:G07
552	9/29/98	1494.001	25	RTA00001083F.a.17.1	M00027393D:F01

553	9/29/98	1494.001	26	RTA00001083F.a.23.1	M00027439B:A09
554	9/29/98	1494.001	27	RTA00001083F.e.18.1	M00027642C:D11
555	9/29/98	1494.001	28	RTA00001083F.e.04.1	M00027618A:B08
556	9/29/98	1494.001	29	RTA00001069F.j.21.1	M00027067A:B02
557	9/29/98	1494.001	30	RTA00001082F.h.20.1	M00027069D:F02
558	9/29/98	1494.001	31	RTA00001069F.o.03.1	M00027386D:C02
559	9/29/98	1494.001	32	RTA00001082F.l.04.1	M00027189C:D04
560	9/29/98	1494.001	33	RTA00001082F.o.05.1	M00027282D:G01
561	9/29/98	1494.001	34	RTA00001069F.a.11.1	M00023284B:G06
562	9/29/98	1494.001	35	RTA00001069F.n.05.1	M00027283C:H12
563	9/29/98	1494.001	36	RTA00001069F.a.22.1	M00023299B:A01
564	9/29/98	1494.001	37	RTA00001069F.h.10.1	M00026942C:A06
565	9/29/98	1494.001	38	RTA00001082F.h.19.1	M00027067B:E09
566	9/29/98	1494.001	39	RTA00001082F.b.05.1	M00023343B:C08
567	9/29/98	1494.001	40	RTA00001082F.j.05.1	M00027131C:E07
568	9/29/98	1494.001	41	RTA00001083F.b.09.1	M00027459A:G12
569	9/29/98	1494.001	42	RTA00001082F.d.07.3	M00026871C:F12
570	9/29/98	1494.001	43	RTA00001083F.c.03.1	M00027499B:G02
571	9/29/98	1494.001	44	RTA00001082F.f.01.1	M00026949A:F04
572	9/29/98	1494.001	45	RTA00001082F.h.12.1	M00027053C:B06
573	9/29/98	1494.001	46	RTA00001082F.a.03.1	M00023282B:H09
574	9/29/98	1494.001	47	RTA00001082F.l.03.1	M00027188A:D12
575	9/29/98	1494.001	48	RTA00001082F.k.04.1	M00027154B:D05
576	9/29/98	1494.001	49	RTA00001069F.b.18.1	M00023340A:A10
577	9/29/98	1494.001	50	RTA00001069F.o.21.1	M00027546B:A11
578	9/29/98	1494.001	51	RTA00001082F.k.01.1	M00027152D:H06
579	9/29/98	1494.001	52	RTA00001083F.a.14.1	M00027388A:G05
580	9/29/98	1494.001	53	RTA00001069F.k.01.1	M00027085A:G10
581	9/29/98	1494.001	54	RTA00001069F.h.09.1	M00026941C:E11
582	9/29/98	1494.001	55	RTA00001069F.o.11.1	M00027462D:A12
583	9/29/98	1494.001	56	RTA00001083F.a.22.1	M00027438D:A03
584	9/29/98	1494.001	57	RTA00001082F.m.21.1	M00027231C:D08
585	9/29/98	1494.001	58	RTA00001083F.f.18.1	M00027752B:E05
586	9/29/98	1494.001	59	RTA00001082F.i.03.1	M00027083C:F06
587	9/29/98	1494.001	60	RTA00001082F.n.01.1	M00027234C:B05
588	9/29/98	1494.001	61	RTA00001082F.l.02.1	M00027184D:H02
589	9/29/98	1494.001	62	RTA00001082F.k.18.1	M00027178B:E04
590	9/29/98	1494.001	63	RTA00001069F.d.09.1	M00023413D:F04
591	9/29/98	1494.001	64	RTA00001069F.p.05.1	M00027607A:A09
592	9/29/98	1494.001	65	RTA00001069F.m.14.1	M00027231A:D01
593	9/29/98	1494.001	66	RTA00001083F.c.21.1	M00027557D:B06
594	9/29/98	1494.001	67	RTA00001069F.i.23.1	M00027023B:H12
595	9/29/98	1494.001	68	RTA00001082F.l.07.1	M00027193A:F07

596	9/29/98	1494.001	69	RTA00001082F.c.15.3	M00026850B:F07
597	9/29/98	1494.001	70	RTA00001082F.f.18.1	M00026982C:D08
598	9/29/98	1494.001	71	RTA00001082F.h.17.1	M00027062C:C04
599	9/29/98	1494.001	72	RTA00001082F.p.14.1	M00027363D:A08
600	9/29/98	1494.001	73	RTA00001069F.j.04.1	M00027028A:B06
601	9/29/98	1494.001	74	RTA00001069F.p.21.1	M00027740C:C05
602	9/29/98	1494.001	75	RTA00001082F.e.07.1	M00026913D:G11
603	9/29/98	1494.001	76	RTA00001082F.d.23.3	M00026905A:G11
604	9/29/98	1494.001	77	RTA00001083F.b.18.1	M00027484A:G03
605	9/29/98	1494.001	78	RTA00001069F.o.06.1	M00027396A:F07
606	9/29/98	1494.001	79	RTA00001082F.p.01.1	M00027343B:H05
607	9/29/98	1494.001	80	RTA00001082F.p.11.1	M00027356A:H02
608	9/29/98	1494.001	81	RTA00001083F.f.19.1	M00027759B:E11
609	9/29/98	1494.001	82	RTA00001082F.i.04.1	M00027083D:F06
610	9/29/98	1494.001	83	RTA00001082F.p.12.1	M00027357D:A02
611	9/29/98	1494.001	84	RTA00001082F.d.15.3	M00026882A:E07
612	9/29/98	1494.001	85	RTA00001082F.i.20.1	M00027115B:G04
613	9/29/98	1494.001	86	RTA00001069F.d.03.1	M00023401C:D12
614	9/29/98	1494.001	87	RTA00001082F.e.10.1	M00026928A:B06
615	9/29/98	1494.001	88	RTA00001082F.a.07.1	M00023295B:C03
616	9/29/98	1494.001	89	RTA00001069F.n.15.1	M00027329A:H04
617	9/29/98	1494.001	90	RTA00001082F.d.08.3	M00026872A:C10
618	9/29/98	1494.001	91	RTA00001083F.f.13.1	M00027728A:B03
619	9/29/98	1494.001	92	RTA00001082F.b.03.1	M00023340B:H12
620	9/29/98	1494.001	93	RTA00001069F.b.09.1	M00023321B:F06
621	9/29/98	1494.001	94	RTA00001082F.l.20.1	M00027202B:B09
622	9/29/98	1494.001	95	RTA00001083F.c.14.1	M00027528A:G03
623	9/29/98	1494.001	96	RTA00001069F.c.07.1	M00023369D:C05
624	9/29/98	1494.001	97	RTA00001083F.d.16.1	M00027598C:D06
625	9/29/98	1494.001	98	RTA00001069F.e.22.1	M00026858C:H05
626	9/29/98	1494.001	99	RTA00001082F.j.10.1	M00027137C:A03
627	9/29/98	1494.001	100	RTA00001069F.b.01.1	M00023301B:C01
628	9/29/98	1494.001	101	RTA00001069F.j.20.1	M00027066A:A04
629	9/29/98	1494.001	102	RTA00001069F.e.24.1	M00026861A:B05
630	9/29/98	1494.001	103	RTA00001069F.b.08.1	M00023321A:F07
631	9/29/98	1494.001	104	RTA00001069F.k.16.1	M00027131A:H02
632	9/29/98	1494.001	105	RTA00001069F.j.22.1	M00027072C:A11
633	9/29/98	1494.001	106	RTA00001069F.j.07.1	M00027036B:D07
634	9/29/98	1494.001	107	RTA00001083F.c.20.1	M00027551C:B07
635	9/29/98	1494.001	108	RTA00001069F.l.11.1	M00027169D:H06
636	9/29/98	1494.001	109	RTA00001069F.c.03.1	M00023363C:A04
637	9/29/98	1494.001	110	RTA00001069F.l.14.1	M00027175D:A05
638	9/29/98	1494.001	111	RTA00001083F.c.10.1	M00027518B:B07

639	9/29/98	1494.001	112	RTA00001082F.a.04.1	M00023287A:D08
640	9/29/98	1494.001	113	RTA00001069F.m.13.1	M00027225B:D03
641	9/29/98	1494.001	114	RTA00001082F.n.08.1	M00027250A:C04
642	9/29/98	1494.001	115	RTA00001069F.e.09.1	M00026819B:E02
643	9/29/98	1494.001	116	RTA00001082F.p.18.1	M00027369A:B03
644	9/29/98	1494.001	117	RTA00001082F.d.24.3	M00026906B:G03
645	9/29/98	1494.001	118	RTA00001069F.c.23.1	M00023398D:F10
646	9/29/98	1494.001	119	RTA00001069F.b.19.1	M00023340B:B07
647	9/29/98	1494.001	120	RTA00001082F.n.03.1	M00027237C:D04
648	9/29/98	1494.001	121	RTA00001069F.a.13.1	M00023289D:E06
649	9/29/98	1494.001	122	RTA00001069F.e.16.1	M00026846C:B01
650	9/29/98	1494.001	123	RTA00001069F.p.04.1	M00027603C:E02
651	9/29/98	1494.001	124	RTA00001069F.m.21.1	M00027248D:D01
652	9/29/98	1494.001	125	RTA00001082F.h.14.1	M00027056B:H07
653	9/29/98	1494.001	126	RTA00001069F.p.03.1	M00027592D:C05
654	9/29/98	1494.001	127	RTA00001069F.n.02.1	M00027266C:G12
655	9/29/98	1494.001	128	RTA00001082F.m.01.1	M00027209D:B09
656	9/29/98	1494.001	129	RTA00001083F.e.09.1	M00027628D:D08
657	9/29/98	1494.001	130	RTA00001069F.d.18.1	M00023432D:F09
658	9/29/98	1494.001	131	RTA00001069F.e.06.1	M00026810A:H04
659	9/29/98	1494.001	132	RTA00001069F.e.05.1	M00026809C:D10
660	9/29/98	1494.001	133	RTA00001083F.c.05.1	M00027502C:H02
661	9/29/98	1494.001	134	RTA00001069F.c.10.1	M00023373A:D01
662	9/29/98	1494.001	135	RTA00001082F.k.10.1	M00027164A:A09
663	9/29/98	1494.001	136	RTA00001083F.c.07.1	M00027507C:C06
664	9/29/98	1494.001	137	RTA00001082F.j.15.1	M00027142A:C01
665	10/8/98	1495.001	1	RTA00001079F.j.08.1	M00022217B:E03
666	10/8/98	1495.001	2	RTA00001081F.h.04.1	M00022854D:C04
667	10/8/98	1495.001	3	RTA00001078F.h.08.1	M00021624B:D03
668	10/8/98	1495.001	4	RTA00001079F.b.12.1	M00022056C:D12
669	10/8/98	1495.001	5	RTA00001066F.o.03.1	M00022074A:F05
670	10/8/98	1495.001	6	RTA00001067F.p.05.1	M00022640B:G10
671	10/8/98	1495.001	7	RTA00001079F.l.05.1	M00022260C:H07
672	10/8/98	1495.001	8	RTA00001078F.f.17.1	M00008083A:H11
673	10/8/98	1495.001	9	RTA00001079F.l.04.1	M00022259A:D04
674	10/8/98	1495.001	10	RTA00001079F.m.19.1	M00022368C:C11
675	10/8/98	1495.001	11	RTA00001081F.f.08.1	M00022831C:F11
676	10/8/98	1495.001	12	RTA00001079F.e.13.1	M00022113B:A12
677	10/8/98	1495.001	13	RTA00001081F.f.21.1	M00022838B:E05
678	10/8/98	1495.001	14	RTA00001079F.g.11.1	M00022152A:G05
679	10/8/98	1495.001	15	RTA00001067F.i.05.1	M00022392C:H06
680	10/8/98	1495.001	16	RTA00001067F.n.01.1	M00022561B:B09
681	10/8/98	1495.001	17	RTA00001080F.i.20.1	M00022569D:H03

682	10/8/98	1495.001	18	RTA00001081F.p.04.1	M00023096A:F03
683	10/8/98	1495.001	19	RTA00001078F.d.04.1	M00008023A:B03
684	10/8/98	1495.001	20	RTA00001080F.h.09.1	M00022546B:F12
685	10/8/98	1495.001	21	RTA00000631F.a.10.3	M00022362D:G11
686	10/8/98	1495.001	22	RTA00001078F.f.15.1	M00008082B:H10
687	10/8/98	1495.001	23	RTA00001078F.a.11.1	M00007948D:F08
688	10/8/98	1495.001	24	RTA00001078F.e.08.1	M00008052C:G11
689	10/8/98	1495.001	25	RTA00001078F.c.08.1	M00008012D:E07
690	10/8/98	1495.001	26	RTA00001078F.b.18.1	M00008001B:E11
691	10/8/98	1495.001	27	RTA00001078F.d.08.1	M00008023C:A06
692	10/8/98	1495.001	28	RTA00001080F.p.19.1	M00022711B:A05
693	10/8/98	1495.001	29	RTA00001078F.a.17.1	M00007965C:B02
694	10/8/98	1495.001	30	RTA00001078F.n.22.2	M00021958A:A04
695	10/8/98	1495.001	31	RTA00001079F.d.12.1	M00022090D:B03
696	10/8/98	1495.001	32	RTA00001078F.j.16.1	M00021696C:E02
697	10/8/98	1495.001	33	RTA00001080F.n.06.1	M00022655A:F09
698	10/8/98	1495.001	34	RTA00001067F.d.16.1	M00022214A:D01
699	10/8/98	1495.001	35	RTA00001078F.l.03.2	M00021865B:F06
700	10/8/98	1495.001	36	RTA00001080F.o.02.1	M00022684B:F11
701	10/8/98	1495.001	37	RTA00001067F.p.15.1	M00022652B:G06
702	10/8/98	1495.001	38	RTA00001079F.d.16.1	M00022094A:A09
703	10/8/98	1495.001	39	RTA00001068F.c.17.1	M00022826A:C08
704	10/8/98	1495.001	40	RTA00001080F.g.05.1	M00022527D:A09
705	10/8/98	1495.001	41	RTA00001081F.e.07.1	M00022813C:B09
706	10/8/98	1495.001	42	RTA00001066F.g.16.1	M00021653C:B06
707	10/8/98	1495.001	43	RTA00001066F.l.05.1	M00021972A:C10
708	10/8/98	1495.001	44	RTA00001066F.h.16.1	M00021691B:E04
709	10/8/98	1495.001	45	RTA00001081F.g.13.1	M00022844C:A01
710	10/8/98	1495.001	46	RTA00001067F.p.07.1	M00022641C:H03
711	10/8/98	1495.001	47	RTA00001080F.g.02.1	M00022525C:E09
712	10/8/98	1495.001	48	RTA00001080F.i.02.1	M00022559D:F10
713	10/8/98	1495.001	49	RTA00001080F.g.22.1	M00022541D:G06
714	10/8/98	1495.001	50	RTA00001067F.d.20.1	M00022216C:H02
715	10/8/98	1495.001	51	RTA00001079F.k.17.1	M00022252A:C01
716	10/8/98	1495.001	52	RTA00001068F.d.04.1	M00022838A:H05
717	10/8/98	1495.001	53	RTA00001079F.n.11.1	M00022377A:E02
718	10/8/98	1495.001	54	RTA00001066F.d.22.1	M00008053D:E09
719	10/8/98	1495.001	55	RTA00001068F.f.08.1	M00023002A:C02
720	10/8/98	1495.001	56	RTA00001081F.o.16.1	M00023038D:D04
721	10/8/98	1495.001	57	RTA00001080F.f.18.1	M00022518C:C04
722	10/8/98	1495.001	58	RTA00001080F.a.16.1	M00022434D:B06
723	10/8/98	1495.001	59	RTA00001080F.j.18.1	M00022590D:E08
724	10/8/98	1495.001	60	RTA00001080F.n.11.1	M00022659B:C01

725	10/8/98	1495.001	61	RTA00001078F.e.01.1	M00008048C:A08
726	10/8/98	1495.001	62	RTA00001078F.b.07.1	M00007992A:G04
727	10/8/98	1495.001	63	RTA00001078F.b.01.1	M00007985C:G07
728	10/8/98	1495.001	64	RTA00001080F.n.14.1	M00022664A:E04
729	10/8/98	1495.001	65	RTA00001078F.o.21.2	M00021980A:F03
730	10/8/98	1495.001	66	RTA00001078F.c.06.1	M00008012B:C05
731	10/8/98	1495.001	67	RTA00001080F.o.15.1	M00022695D:B02
732	10/8/98	1495.001	68	RTA00001080F.o.16.1	M00022696A:H03
733	10/8/98	1495.001	69	RTA00001081F.a.07.2	M00022720A:C01
734	10/8/98	1495.001	70	RTA00001078F.f.22.1	M00008089C:B08
735	10/8/98	1495.001	71	RTA00001078F.g.02.1	M00008093C:G08
736	10/8/98	1495.001	72	RTA00001078F.j.13.2	M00021689A:G05
737	10/8/98	1495.001	73	RTA00001078F.l.02.2	M00021864C:C07
738	10/8/98	1495.001	74	RTA00001078F.i.14.2	M00021667C:G10
739	10/8/98	1495.001	75	RTA00001079F.d.04.1	M00022087A:D01
740	10/8/98	1495.001	76	RTA00001079F.l.09.1	M00022263A:C01
741	10/8/98	1495.001	77	RTA00001067F.o.19.1	M00022627B:D01
742	10/8/98	1495.001	78	RTA00001068F.b.01.1	M00022714B:D04
743	10/8/98	1495.001	79	RTA00001079F.f.07.1	M00022128A:C05
744	10/8/98	1495.001	80	RTA00001068F.a.03.1	M00022669D:G07
745	10/8/98	1495.001	81	RTA00001066F.f.03.1	M00008088D:B01
746	10/8/98	1495.001	82	RTA00001067F.o.18.1	M00022627A:A02
747	10/8/98	1495.001	83	RTA00001079F.k.12.1	M00022249C:G09
748	10/8/98	1495.001	84	RTA00001081F.g.07.1	M00022843A:D02
749	10/8/98	1495.001	85	RTA00001079F.j.01.1	M00022214A:H05
750	10/8/98	1495.001	86	RTA00001067F.p.10.1	M00022648D:G11
751	10/8/98	1495.001	87	RTA00001081F.f.16.1	M00022836C:A07
752	10/8/98	1495.001	88	RTA00001080F.i.05.1	M00022561D:E06
753	10/8/98	1495.001	89	RTA00001067F.l.02.1	M00022490B:G12
754	10/8/98	1495.001	90	RTA00001068F.a.23.1	M00022709A:G02
755	10/8/98	1495.001	91	RTA00001067F.d.18.1	M00022214C:E09
756	10/8/98	1495.001	92	RTA00001066F.o.05.1	M00022077D:A12
757	10/8/98	1495.001	93	RTA00001066F.m.08.1	M00022015D:C11
758	10/8/98	1495.001	94	RTA00001066F.b.12.1	M00007978B:C04
759	10/8/98	1495.001	95	RTA00001066F.c.08.1	M00008002B:F09
760	10/8/98	1495.001	96	RTA00001081F.p.05.1	M00023096C:A03
761	10/8/98	1495.001	97	RTA00001081F.c.01.1	M00022746D:D05
762	10/8/98	1495.001	98	RTA00001079F.m.23.1	M00022370A:G07
763	10/8/98	1495.001	99	RTA00001079F.m.09.1	M00022300A:A05
764	10/8/98	1495.001	100	RTA00001081F.c.21.1	M00022785C:B10
765	10/8/98	1495.001	101	RTA00001079F.o.04.1	M00022383C:F05
766	10/8/98	1495.001	102	RTA00001080F.b.10.1	M00022449D:B05
767	10/8/98	1495.001	103	RTA00001078F.c.09.1	M00008012D:H04

768	10/8/98	1495.001	104	RTA00001078F.d.19.1	M00008044C:A05
769	10/8/98	1495.001	105	RTA00001081F.a.11.2	M00022722D:C07
770	10/8/98	1495.001	106	RTA00001080F.n.15.1	M00022664C:G10
771	10/8/98	1495.001	107	RTA00001078F.a.09.1	M00007941D:D07
772	10/8/98	1495.001	108	RTA00001078F.g.20.1	M00021614A:C09
773	10/8/98	1495.001	109	RTA00001066F.h.23.1	M00021841A:E11
774	10/8/98	1495.001	110	RTA00001081F.l.11.2	M00022922D:G06
775	10/8/98	1495.001	111	RTA00001079F.d.18.1	M00022096B:D10
776	10/8/98	1495.001	112	RTA00001066F.f.21.1	M00008100D:C08
777	10/8/98	1495.001	113	RTA00001078F.j.06.1	M00021680D:H08
778	10/8/98	1495.001	114	RTA00001067F.d.08.1	M00022205A:C02
779	10/8/98	1495.001	115	RTA00001068F.b.05.1	M00022717C:F05
780	10/8/98	1495.001	116	RTA00001079F.c.05.1	M00022071D:C08
781	10/8/98	1495.001	117	RTA00001078F.k.10.2	M00021852C:D12
782	10/8/98	1495.001	118	RTA00001081F.i.18.2	M00022884D:A07
783	10/8/98	1495.001	119	RTA00001066F.b.21.1	M00007996C:B11
784	10/8/98	1495.001	120	RTA00001066F.i.08.1	M00021851D:H06
785	10/8/98	1495.001	121	RTA00001068F.e.08.1	M00022915C:C09
786	10/8/98	1495.001	122	RTA00001079F.j.15.1	M00022220B:B06
787	10/8/98	1495.001	123	RTA00001078F.j.18.2	M00021698A:H03
788	10/8/98	1495.001	124	RTA00001066F.b.09.1	M00007977B:C11
789	10/8/98	1495.001	125	RTA00001079F.i.20.1	M00022207C:C01
790	10/8/98	1495.001	126	RTA00001080F.e.15.1	M00022506D:B03
791	10/8/98	1495.001	127	RTA00001080F.l.03.1	M00022617B:A01
792	10/8/98	1495.001	128	RTA00001080F.e.10.1	M00022501D:A09
793	10/8/98	1495.001	129	RTA00001067F.c.22.1	M00022184D:F07
794	10/8/98	1495.001	130	RTA00001081F.p.11.1	M00023097A:C03
795	10/8/98	1495.001	131	RTA00001081F.p.08.1	M00023096D:B11
796	10/8/98	1495.001	132	RTA00001080F.c.19.1	M00022471D:A05
797	10/8/98	1495.001	133	RTA00001081F.b.06.1	M00022736B:B03
798	10/8/98	1495.001	134	RTA00001081F.m.22.1	M00022983A:H04
799	10/8/98	1495.001	135	RTA00001081F.d.11.1	M00022801A:G04
800	10/8/98	1495.001	136	RTA00001081F.n.13.1	M00023002D:C12
801	10/8/98	1495.001	137	RTA00001067F.d.17.1	M00022214C:C11
802	10/8/98	1495.001	138	RTA00001081F.c.13.1	M00022772A:A06
803	10/8/98	1495.001	139	RTA00001078F.b.19.1	M00008001D:F11
804	10/8/98	1495.001	140	RTA00001078F.a.04.1	M00007931A:B07
805	10/8/98	1495.001	141	RTA00001078F.b.16.1	M00008000D:G11
806	10/8/98	1495.001	142	RTA00001078F.b.04.1	M00007987A:D10
807	10/8/98	1495.001	143	RTA00001078F.d.18.1	M00008044B:F07
808	10/8/98	1495.001	144	RTA00001068F.e.05.1	M00022904D:D04
809	10/8/98	1495.001	145	RTA00001078F.i.18.1	M00021674A:B07
810	10/8/98	1495.001	146	RTA00001066F.e.01.1	M00008054C:C03

811	10/8/98	1495.001	147	RTA00001078F.n.14.2	M00021949D:A05
812	10/8/98	1495.001	148	RTA00001067F.i.17.1	M00022413B:D07
813	10/8/98	1495.001	149	RTA00001079F.l.19.1	M00022278C:E04
814	10/8/98	1495.001	150	RTA00001081F.l.12.2	M00022923A:A09
815	10/8/98	1495.001	151	RTA00001067F.j.03.1	M00022420B:C08
816	10/8/98	1495.001	152	RTA00001068F.d.19.1	M00022898C:H07
817	10/8/98	1495.001	153	RTA00001081F.g.23.1	M00022853D:C05
818	10/8/98	1495.001	154	RTA00001081F.h.16.1	M00022860A:A07
819	10/8/98	1495.001	155	RTA00001079F.i.05.1	M00022192B:H07
820	10/8/98	1495.001	156	RTA00001068F.f.12.1	M00023012A:C06
821	10/8/98	1495.001	157	RTA00001067F.e.09.1	M00022235D:F07
822	10/8/98	1495.001	158	RTA00001066F.m.10.1	M00022018B:E09
823	10/8/98	1495.001	159	RTA00001080F.j.19.1	M00022591C:F03
824	10/8/98	1495.001	160	RTA00001080F.f.07.1	M00022513C:G04
825	10/8/98	1495.001	161	RTA00001080F.e.09.1	M00022500B:D01
826	10/8/98	1495.001	162	RTA00001080F.e.19.1	M00022509D:A12
827	10/8/98	1495.001	163	RTA00001066F.a.13.1	M00007948B:B07
828	10/8/98	1495.001	164	RTA00001079F.p.14.1	M00022407D:G07
829	10/8/98	1495.001	165	RTA00001079F.p.03.1	M00022399C:B02
830	10/8/98	1495.001	166	RTA00001079F.n.22.1	M00022381B:C12
831	10/8/98	1495.001	167	RTA00001078F.a.06.1	M00007937C:E08
832	10/8/98	1495.001	168	RTA00001078F.a.19.1	M00007973D:B03
833	10/8/98	1495.001	169	RTA00001078F.b.15.1	M00008000D:B06
834	10/8/98	1495.001	170	RTA00001079F.c.15.1	M00022078B:B04
835	10/8/98	1495.001	171	RTA00001079F.d.06.1	M00022088B:E05
836	10/8/98	1495.001	172	RTA00001067F.a.05.1	M00022118A:D08
837	10/8/98	1495.001	173	RTA00001078F.i.15.2	M00021668D:G09
838	10/8/98	1495.001	174	RTA00001066F.a.11.1	M00007947B:F07
839	10/8/98	1495.001	175	RTA00001078F.k.02.2	M00021846B:F05
840	10/8/98	1495.001	176	RTA00001066F.h.04.1	M00021669B:G02
841	10/8/98	1495.001	177	RTA00001066F.c.21.1	M00008015B:D08
842	10/8/98	1495.001	178	RTA00001080F.h.06.1	M00022544C:D08
843	10/8/98	1495.001	179	RTA00001067F.c.16.1	M00022177D:G02
844	10/8/98	1495.001	180	RTA00001080F.f.21.1	M00022522B:A05
845	10/8/98	1495.001	181	RTA00001080F.a.10.1	M00022425A:F11
846	10/8/98	1495.001	182	RTA00001081F.o.10.1	M00023034B:B10
847	10/8/98	1495.001	183	RTA00001078F.b.17.1	M00008001A:G11
848	10/8/98	1495.001	184	RTA00001078F.g.04.1	M00008094D:C02
849	10/8/98	1495.001	185	RTA00001080F.p.05.1	M00022704A:H08
850	10/8/98	1495.001	186	RTA00001067F.f.04.1	M00022256D:G11
851	10/8/98	1495.001	187	RTA00001066F.c.11.1	M00008003B:F09
852	10/8/98	1495.001	188	RTA00001081F.b.19.1	M00022743C:G05
853	10/8/98	1495.001	189	RTA00001081F.p.14.1	M00023097C:D10

854	10/8/98	1495.001	190	RTA00001067F.k.16.1	M00022467C:H07
855	10/8/98	1495.001	191	RTA00001081F.b.11.1	M00022737D:B02
856	10/8/98	1495.001	192	RTA00001080F.k.12.1	M00022601A:A09
857	10/8/98	1495.001	193	RTA00001066F.a.08.1	M00007943C:B02
858	10/8/98	1495.001	194	RTA00001081F.b.10.1	M00022737B:F12
859	10/8/98	1495.001	195	RTA00001080F.d.15.1	M00022488C:H02
860	10/8/98	1495.001	196	RTA00001079F.p.04.1	M00022399D:A07
861	10/8/98	1495.001	197	RTA00001067F.e.23.1	M00022251A:F07
862	10/8/98	1495.001	198	RTA00001068F.a.08.1	M00022684C:C12
863	10/8/98	1495.001	199	RTA00001078F.h.16.1	M00021628C:B09
864	10/8/98	1495.001	200	RTA00001081F.g.18.1	M00022848D:H09
865	10/8/98	1495.001	201	RTA00001081F.m.15.1	M00022968D:G06
866	10/8/98	1495.001	202	RTA00001067F.k.09.1	M00022459C:G05
867	10/8/98	1495.001	203	RTA00001080F.g.04.1	M00022527B:H05
868	10/8/98	1495.001	204	RTA00001081F.j.19.2	M00022902C:F11
869	10/8/98	1495.001	205	RTA00001081F.o.03.1	M00023023B:A05
870	10/8/98	1495.001	206	RTA00001079F.b.23.1	M00022067A:B03
871	10/8/98	1495.001	207	RTA00001078F.n.16.2	M00021951B:A01
872	10/8/98	1495.001	208	RTA00001067F.b.01.1	M00022134D:D12
873	10/8/98	1495.001	209	RTA00001080F.a.17.1	M00022435C:C05
874	10/8/98	1495.001	210	RTA00001080F.c.17.1	M00022469A:A05
875	10/8/98	1495.001	211	RTA00001068F.f.10.1	M00023003C:C10
876	10/8/98	1495.001	212	RTA00001081F.h.18.1	M00022861C:B04
877	10/8/98	1495.001	213	RTA00001066F.p.19.1	M00022106D:B06
878	10/8/98	1495.001	214	RTA00001080F.c.09.1	M00022464D:F12
879	10/8/98	1495.001	215	RTA00001078F.c.12.1	M00008014C:H01
880	10/8/98	1495.001	216	RTA00001080F.l.10.1	M00022622A:E08
881	10/8/98	1495.001	217	RTA00001078F.g.11.1	M00008099A:C12
882	10/8/98	1495.001	218	RTA00001068F.f.09.1	M00023003A:H01
883	10/8/98	1495.001	219	RTA00001067F.f.10.1	M00022261C:D06
884	10/8/98	1495.001	220	RTA00001080F.o.05.1	M00022687C:C11
885	10/8/98	1495.001	221	RTA00001078F.h.04.1	M00021620D:B06
886	10/8/98	1495.001	222	RTA00001078F.p.03.2	M00021981D:A11
887	10/8/98	1495.001	223	RTA00001080F.e.20.1	M00022510A:B09
888	10/8/98	1495.001	224	RTA00001078F.k.19.2	M00021861C:B08
889	10/8/98	1495.001	225	RTA00001078F.d.20.1	M00008045A:B05
890	10/8/98	1495.001	226	RTA00001078F.b.22.1	M00008006A:H02
891	10/8/98	1495.001	227	RTA00001068F.a.13.1	M00022701C:A05
892	10/8/98	1495.001	228	RTA00001080F.m.16.1	M00022641D:F08
893	10/8/98	1495.001	229	RTA00001080F.o.22.1	M00022702A:D10
894	10/8/98	1495.001	230	RTA00001080F.k.16.1	M00022604A:F06
895	10/8/98	1495.001	231	RTA00001067F.d.04.1	M00022199A:F09
896	10/8/98	1495.001	232	RTA00001067F.k.10.1	M00022460C:E12

897	10/8/98	1495.001	233	RTA00001078F.n.04.2	M00021931B:F04
898	10/8/98	1495.001	234	RTA00001078F.n.07.2	M00021945A:B04
899	10/8/98	1495.001	235	RTA00001081F.a.16.1	M00022725D:G05
900	10/8/98	1495.001	236	RTA00001078F.l.13.2	M00021879B:C11
901	10/8/98	1495.001	237	RTA00001078F.f.13.1	M00008082B:C05
902	10/8/98	1495.001	238	RTA00001079F.d.05.1	M00022087D:F12
903	10/8/98	1495.001	239	RTA00001067F.i.13.1	M00022406C:G03
904	10/8/98	1495.001	240	RTA00001068F.d.23.1	M00022902B:F10
905	10/8/98	1495.001	241	RTA00001078F.c.13.1	M00008014D:A11
906	10/8/98	1495.001	242	RTA00001078F.a.18.1	M00007969B:E10
907	10/8/98	1495.001	243	RTA00001068F.b.23.1	M00022765B:E03
908	10/8/98	1495.001	244	RTA00001078F.f.21.1	M00008085B:G01
909	10/8/98	1495.001	245	RTA00001067F.b.15.1	M00022144D:D09
910	10/8/98	1495.001	246	RTA00001078F.o.04.2	M00021963C:H04
911	10/8/98	1495.001	247	RTA00001081F.e.14.1	M00022817D:B09
912	10/8/98	1495.001	248	RTA00001078F.k.04.2	M00021847B:A09
913	10/8/98	1495.001	249	RTA00001079F.g.15.2	M00022158C:C08
914	10/8/98	1495.001	250	RTA00001067F.k.23.1	M00022477C:C07
915	10/8/98	1495.001	251	RTA00001079F.h.08.2	M00022176A:F02
916	10/8/98	1495.001	252	RTA00001078F.d.17.1	M00008028D:B01
917	10/8/98	1495.001	253	RTA00001067F.d.07.1	M00022203B:A05
918	10/8/98	1495.001	254	RTA00001068F.e.04.1	M00022903D:H02
919	10/8/98	1495.001	255	RTA00001068F.a.06.1	M00022682A:F10
920	10/8/98	1495.001	256	RTA00001078F.e.10.1	M00008054C:E07
921	10/8/98	1495.001	257	RTA00001079F.b.11.1	M00022056B:G12
922	10/8/98	1495.001	258	RTA00001066F.h.11.1	M00021676B:B12
923	10/8/98	1495.001	259	RTA00001079F.d.01.1	M00022084B:C03
924	10/8/98	1495.001	260	RTA00001067F.g.14.1	M00022363C:D03
925	10/8/98	1495.001	261	RTA00001066F.g.06.1	M00021625B:G07
926	10/8/98	1495.001	262	RTA00001081F.j.09.2	M00022893D:C06
927	10/8/98	1495.001	263	RTA00001068F.e.19.1	M00022963A:E07
928	10/8/98	1495.001	264	RTA00001079F.l.21.1	M00022282A:A11
929	10/8/98	1495.001	265	RTA00001078F.h.09.1	M00021624B:E11
930	10/8/98	1495.001	266	RTA00001078F.d.16.1	M00008027D:H09
931	10/8/98	1495.001	267	RTA00001079F.g.22.2	M00022167B:H02
932	10/8/98	1495.001	268	RTA00001066F.e.15.1	M00008075D:B01
933	10/8/98	1495.001	269	RTA00001080F.g.16.1	M00022538D:B02
934	10/8/98	1495.001	270	RTA00001080F.b.07.1	M00022447A:H06
935	10/8/98	1495.001	271	RTA00001078F.n.21.2	M00021958A:A03
936	10/8/98	1495.001	272	RTA00001078F.b.12.1	M00007998C:B04
937	10/8/98	1495.001	273	RTA00001066F.p.01.2	M00022099C:A10
938	10/8/98	1495.001	274	RTA00001066F.o.22.1	M00022095C:F03
939	10/8/98	1495.001	275	RTA00001080F.i.19.1	M00022568B:D03

940	10/8/98	1495.001	276	RTA00001079F.g.01.1	M00022138C:B07
941	10/8/98	1495.001	277	RTA00001079F.e.02.1	M00022102D:A10
942	10/8/98	1495.001	278	RTA00001079F.k.01.1	M00022233C:D11
943	10/8/98	1495.001	279	RTA00001079F.o.11.1	M00022386D:C04
944	10/8/98	1495.001	280	RTA00001068F.d.02.1	M00022834A:H02
945	10/8/98	1495.001	281	RTA00001078F.a.07.1	M00007939A:F06
946	10/8/98	1495.001	282	RTA00001081F.b.20.1	M00022743C:G06
947	10/8/98	1495.001	283	RTA00001067F.f.20.1	M00022273A:B03
948	10/8/98	1495.001	284	RTA00001079F.c.06.1	M00022072D:E12
949	10/8/98	1495.001	285	RTA00001068F.b.24.1	M00022768A:A10
950	10/8/98	1495.001	286	RTA00001080F.o.08.1	M00022691A:G01
951	10/8/98	1495.001	287	RTA00001078F.j.10.2	M00021687C:A04
952	10/8/98	1495.001	288	RTA00001080F.b.03.1	M00022444B:C04
953	10/8/98	1495.001	289	RTA00001067F.e.13.1	M00022240C:B03
954	10/8/98	1495.001	290	RTA00001081F.h.05.1	M00022856A:B09
955	10/8/98	1495.001	291	RTA00001067F.f.01.1	M00022252C:A04
956	10/8/98	1495.001	292	RTA00001080F.g.23.1	M00022542A:B06
957	10/8/98	1495.001	293	RTA00001080F.h.16.1	M00022548A:F02
958	10/8/98	1495.001	294	RTA00001080F.f.15.1	M00022517C:B01
959	10/8/98	1495.001	295	RTA00001080F.f.06.1	M00022513C:E10
960	10/8/98	1495.001	296	RTA00001081F.a.04.2	M00022716A:C01
961	10/8/98	1495.001	297	RTA00001078F.p.16.2	M00022001B:H10
962	10/8/98	1495.001	298	RTA00001081F.b.03.1	M00022734C:A03
963	10/8/98	1495.001	299	RTA00001080F.a.21.1	M00022441B:A06
964	10/8/98	1495.001	300	RTA00001079F.f.05.1	M00022127C:E01
965	10/8/98	1495.001	301	RTA00001080F.n.23.1	M00022681D:H10
966	10/8/98	1495.001	302	RTA00001078F.c.18.1	M00008016C:E06
967	10/8/98	1495.001	303	RTA00001068F.a.11.1	M00022697A:C08
968	10/8/98	1495.001	304	RTA00001068F.g.09.1	M00023095C:A09
969	10/8/98	1495.001	305	RTA00001068F.a.22.1	M00022709A:C01
970	10/8/98	1495.001	306	RTA00001079F.h.09.2	M00022176D:F05
971	10/8/98	1495.001	307	RTA00001079F.h.01.2	M00022169A:E11
972	10/8/98	1495.001	308	RTA00001078F.g.07.1	M00008097C:E04
973	10/8/98	1495.001	309	RTA00001078F.m.08.2	M00021908B:F03
974	10/8/98	1495.001	310	RTA00001080F.a.03.1	M00022417B:C01
975	10/8/98	1495.001	311	RTA00001079F.o.06.1	M00022384B:E06
976	10/8/98	1495.001	312	RTA00001079F.p.06.1	M00022401C:G07
977	10/8/98	1495.001	313	RTA00001078F.p.18.2	M00022001D:E06
978	10/8/98	1495.001	314	RTA00001068F.a.17.1	M00022705B:F08
979	10/8/98	1495.001	315	RTA00001078F.a.10.1	M00007948C:G01
980	10/8/98	1495.001	316	RTA00001079F.h.20.2	M00022184D:H07
981	10/8/98	1495.001	317	RTA00001081F.n.03.1	M00022986B:C02
982	10/8/98	1495.001	318	RTA00001080F.c.04.1	M00022460D:C07

Table 1B

SEQ ID NO:	Sample Name	Clone ID
983	270.F5.sp6:145120	M00001401B:A02
984	344.C4.sp6:146251	M00023363C:A04
985	628.D9.sp6:157832	M00008028D:B01
986	628.F7.sp6:157854	M00008023C:A06
987	636.G12.sp6:158255	M00022077D:A12
988	653.F3.sp6:159004	M00023284B:G06
989	654.H6.sp6:159223	M00023369D:C05
990	655.B2.sp6:156468	M00023413D:F04
991	656.B11.sp6:159348	M00026905A:G11
992	661.C10.sp6:159743	M00027169D:H06
993	953.B04.sp6:185140	M00005434D:H02
994	270.F5.sp6:145120	M00001401B:A02
995	344.C4.sp6:146251	M00023363C:A04
996	655.B2.sp6:156468	M00023413D:F04

Table 1C

SEQ ID NO:	Sequence Name	THC Accession No.
997	RTA00001071F.i.23.3	AA173046
998	RTA00001079F.m.19.1	THC220786
999	RTA00001067F.i.05.1	THC233199
1000	RTA00001082F.o.01.1	THC178783
1001	RTA00001067F.n.01.1	AA173079
1002	RTA00001076F.b.13.1	AA554659
1003	RTA00001064F.p.03.1	AA432284
1004	RTA00001072F.g.05.2	H20612
1005	RTA00001064F.c.01.1	EST55879
1006	RTA00001083F.b.09.1	W30744
1007	RTA00001083F.c.03.1	THC205070
1008	RTA00001066F.h.16.1	EST14169
1009	RTA00001076F.n.10.1	THC144372
1010	RTA00001061F.e.17.1	N48670
1011	RTA00001071F.m.09.3	R56510
1012	RTA00001080F.g.02.1	THC77700
1013	RTA00001073F.i.02.2	Z46186
1014	RTA00001076F.j.14.1	THC144372
1015	RTA00001068F.d.04.1	AA011604
1016	RTA00001069F.o.11.1	AA576259
1017	RTA00001073F.k.01.1	R52934
1018	RTA00001080F.f.18.1	THC126698
1019	RTA00001075F.e.18.1	THC209874
1020	RTA00001076F.d.13.1	AA158197

1021	RTA00001065F.f.06.1	THC219476
1022	RTA00001068F.b.01.1	THC151511
1023	RTA00001068F.a.03.1	THC220020
1024	RTA00001072F.b.09.2	AA554360
1025	RTA00001076F.i.09.1	EST20991
1026	RTA00001073F.l.04.1	AA527712
1027	RTA00001067F.d.18.1	THC198501
1028	RTA00001082F.b.03.1	THC218291
1029	RTA00001082F.l.20.1	THC204015
1030	RTA00001081F.c.21.1	THC203534
1031	RTA00001069F.b.08.1	THC234347
1032	RTA00001074F.f.09.1	N53623
1033	RTA00001066F.h.23.1	THC129284
1034	RTA00001064F.h.07.1	THC161794
1035	RTA00001066F.f.21.1	T92493
1036	RTA00001069F.m.13.1	AA148143
1037	RTA00001064F.d.14.1	THC138642
1038	RTA00001068F.e.08.1	AA633643
1039	RTA00001065F.d.19.1	THC227618
1040	RTA00001069F.e.06.1	T19066
1041	RTA00001069F.e.05.1	T19066
1042	RTA00001082F.j.15.1	THC226714
1043	RTA00001067F.i.17.1	EST83778
1044	RTA00001081F.l.12.2	AA121009
1045	RTA00001080F.e.19.1	T99190
1046	RTA00001065F.d.18.2	H59526
1047	RTA00001078F.a.06.1	AA453802
1048	RTA00001065F.a.21.1	THC86626
1049	RTA00001075F.a.02.1	AA632565
1050	RTA00001066F.c.21.1	AA465322
1051	RTA00001080F.h.06.1	THC232157
1052	RTA00001067F.b.01.1	EST79811
1053	RTA00001071F.l.19.1	THC208816
1054	RTA00001062F.f.01.1	THC105335
1055	RTA00001063F.g.18.1	THC205088
1056	RTA00001062F.j.18.1	THC220715
1057	RTA00001078F.b.22.1	THC232576
1058	RTA00001064F.a.09.2	THC171312
1059	RTA00001064F.k.20.2	THC200994
1060	RTA00001080F.m.16.1	EST62430
1061	RTA00001078F.n.04.2	THC231131
1062	RTA00001071F.p.07.1	AA524115
1063	RTA00001074F.k.15.1	AA053768

1064	RTA00001073F.g.22.1	THC146930
1065	RTA00001067F.k.23.1	THC211481
1066	RTA00001068F.a.06.1	THC232664
1067	RTA00001067F.g.14.1	THC110314
1068	RTA00001072F.i.19.3	EST84170
1069	RTA00001079F.g.22.2	THC146930
1070	RTA00001061F.j.03.1	THC195525
1071	RTA00001072F.c.16.2	AA159011
1072	RTA00001061F.c.12.1	THC196151
1073	RTA00001072F.j.23.2	N99474
1074	RTA00001080F.f.06.1	R06925
1075	RTA00001080F.a.21.1	THC173393
1076	RTA00001068F.a.11.1	THC202663
1077	RTA00001078F.g.07.1	EST89489
1078	RTA00001078F.m.08.2	THC233725
1079	RTA00001068F.a.17.1	N86176

Table 2A: Nearest Neighbor (BlastN vs. Genbank)

SEQ ID	ACC'N	DESCRIP.	P VALUE
1	NM_005757.1	Homo sapiens C3H-type zinc finger protein; similar to D. melanogaster muscleblind B protein (MBLL) mRNA >gi|3779239|gb|AF061261|AF061261 Homo sapiens zinc finger protein (MBLL) mRNA, complete cds	7.00E-99
5	M86697	Peptostreptococcus magnus protein L gene, complete cds.	1.90E+00
6	AF080255.1	Homo sapiens lodestar protein mRNA, complete cds	1.00E-37
7	Z95310	Caenorhabditis elegans cosmid H40L08, complete sequence [Caenorhabditis elegans]	2.00E+00
9	AF124981.1	Bombyx mori nuclear receptor GRF (GRF) mRNA, complete cds	1.90E+00
10	U43663	Xenopus laevis transposon TXr.11 transposase pseudogene, complete cds	4.20E+00
11	AE001495	Helicobacter pylori, strain J99 section 56 of 132 of the complete genome	2.00E+00
12	AB031040.1	Mus musculus mLhx6.1a mRNA for LIM-homeodomain (LHX) protein 6.1a, complete cds	1.00E-79
13	AF132973.1	Homo sapiens CGI-39 protein mRNA, complete cds	2.00E-30
14	L81907	Homo sapiens (subclone 1_c12 from P1 H69) DNA sequence	2.00E+00
15	AE001543	Helicobacter pylori, strain J99 section 104 of 132 of the complete genome	8.00E-03
16	L42167	Mus musculus (clone R24) rds gene, partial cds	4.70E-01
17	U58870	Bos taurus carbonic anhydrase IV mRNA, complete cds	6.80E-01
18	AB025187.1	Oryza sativa mRNA for cytochrome c oxidase subunit 6b-1, complete cds	2.30E-01
19	AE000723	Aquifex aeolicus section 55 of 109 of the complete genome	6.80E-01
20	U72058	Mus musculus chloride channel regulator (Icln) gene, exon 2 and partial cds	6.80E-01
21	U24698	Aspergillus parasiticus norsolorinic acid reductase (nor) gene, complete cds	6.50E-01
22	AB014528	Homo sapiens mRNA for KIAA0628 protein, complete cds	0.00E+00
23	X90691	M.morganii DNA for orf3, orf4, orf5, orf6, orf7, orf8, orf9, and rumA & rumB genes	2.00E+00
25	U24098	Macaca fascicularis eosinophil cationic protein gene, complete cds	6.60E-01
27	U19355	Rattus norvegicus satellite sequence d0Mco3.	6.60E-01
28	U39655	Caenorhabditis elegans cosmid C46F4	1.90E+00
29	M34463	Rat S-adenosylmethionine decarboxylase (AMDP1) pseudogene, complete cds.	1.90E+00

Table 2A: Nearest Neighbor (BlastN vs. Genbank)

SEQ ID	ACC'N	DESCRIP.	P VALUE
30	AB028898.1	Mus musculus mRNA for U8, complete cds	7.00E-43
31	M19547	D.melanogaster (strain Af-S) alcohol dehydrogenase gene (allele Adh-S), complete cds.	2.00E+00
32	AB029001.1	Homo sapiens mRNA for KIAA1078 protein, partial cds	e-158
33	AF063668.1	Mus musculus type XIII collagen (col13a1) gene, exon 3	2.10E+00
34	X07356	Chicken nicotinic acetylcholine receptor non-alpha gene exon 5	6.60E-01
35	U69609	Human transcriptional repressor (GCF2) mRNA, complete cds	1.80E+00
36	AF041861	Mus musculus synaptojanin 2 isoform zeta mRNA, partial cds	1.90E+00
37	AB028975.1	Homo sapiens mRNA for KIAA1052 protein, complete cds	1.90E+00
38	AF046000	Mus musculus rod cGMP phosphodiesterase delta subunit (Pde6d) gene, complete cds	5.50E-01
39	L09705	Human DNA sequence.	6.10E-01
41	AF052692	Homo sapiens connexin 31 (GJB3) mRNA, complete cds	e-132
42	Z80214	Caenorhabditis elegans cosmid C27D8, complete sequence [Caenorhabditis elegans]	4.70E-01
43	M95520	Streptococcus canis (group G) albumin-binding protein gene, partial cds.	2.30E-01
44	AE001392	Plasmodium falciparum chromosome 2, section 29 of 73 of the complete sequence	7.70E-02
45	AF112187	Mus musculus epithelial sodium channel gamma subunit mRNA, complete cds	2.10E+00
46	M31616	O.sativa ADPglucose pyrophosphorylase gene, complete cds.	2.30E-01
47	U20734	Human transcription factor junB (junB) gene, 5' region and complete cds.	2.30E-01
48	U35782	Anopheles bwambae 12S ribosomal RNA, D-loop, and tRNA-Ile mitochondrial genes, partial sequence.	2.30E-01
49	AF138280.1	Gallus gallus chondromodulin-I mRNA, complete cds	3.00E-03
50	AE001392	Plasmodium falciparum chromosome 2, section 29 of 73 of the complete sequence	7.60E-02
52	D45385	Pokeweed mRNA for polyphenol oxidase, complete cds	2.20E-01
53	J04804	C.elegans vinculin (deb-1) gene, complete cds.	2.20E-01
54	M34431	Human PVT-IGLC fusion protein mRNA, 5' end.	6.70E-01
55	L05634	Bacillus subtilis ORF1, 3' end; wall-associated protein (walA) gene, complete cds; complete ORF3.	6.50E-01

Table 2A: Nearest Neighbor (BlastN vs. Genbank)

SEQ ID	ACC'N	DESCRIP.	P VALUE
56	X82430	E.coli transposable element IS1294	2.20E-01
57	AJ224356	Solanum lycopersicon tDET1 gene	6.70E-01
58	U07792	Human tyrosine kinase (TXK) gene, exon 8, partial cds. >gi|1161352|gb|U34371|HSTECTXT05 Human tyrosine kinase TXK (txk) gene, exon 5.	6.60E-01
59	D87559	Bos taurus mRNA for platelet-activating factor acetylhydrolase 2, complete cds	2.20E-01
60	U45427	Borrelia burgdorferi 2.9-7 locus, ORF-A-D, REV, and lipoprotein (LPA and LPB) genes, complete cds	6.60E-01
61	AB018343.1	Homo sapiens mRNA for KIAA0800 protein, complete cds	e-177
62	X92186	M.musculus 11beta-hydroxysteroid dehydrogenase type 1 gene	0.66
63	U51899	Human kappa-casein gene, complete cds	0.65
64	S62069	cathepsin B {5' region} [human, Genomic, 886 nt, segment 1 of 2]	0.22
65	M26198	Bovine ASS mRNA encoding argininosuccinate synthetase, complete cds.	0.22
66	AE001628	Chlamydia pneumoniae section 44 of 103 of the complete genome	2.20E-01
67	AF097906	Rana catesbeiana myosin heavy chain (MHC-3) mRNA, partial cds	6.40E-01
68	AE001023	Archaeoglobus fulgidus section 84 of 172 of the complete genome	2.30E-01
69	U11682	Trypanoplasma borelli mitochondrion cytochrome oxidase subunit 1 (cox1), cytochrome oxidase subunit 2 and complete 9S rRNA gene and partial 12S rRNA gene.	6.40E-01
70	J03267	Rat atrial natriuretic factor (ANF) gene, 5' end.	6.40E-01
71	AL034546.5	Human DNA sequence from clone 898I4 on chromosome 22q13.33. Contains a GSS and a putative CpG island, complete sequence [Homo sapiens]	6.20E-01
72	U78730	Homo sapiens mad protein homolog Smad2 gene, exon 7	1.90E-01
73	D87686.1	Homo sapiens mRNA for KIAA0017 protein, complete cds	e-175
74	AF085361.1	Homo sapiens HSPC032 mRNA, complete cds	2.00E-55
75	AF168786.1	Sorghum bicolor soluble starch synthase mRNA, partial cds	2.50E-02
76	Z99102	Caenorhabditis elegans cosmid B0331, complete sequence [Caenorhabditis elegans]	7.40E-02
77	AE001247	Treponema pallidum section 63 of 87 of the complete genome	2.30E-01

Table 2A: Nearest Neighbor (BlastN vs. Genbank)

SEQ ID	ACC'N	DESCRIP.	P VALUE
78	U20734	Human transcription factor junB (junB) gene, 5' region and complete cds.	5.00E-08
79	X92112	G.gallus mRNA for guanylate-binding protein	7.50E-02
80	AF043692	Caenorhabditis elegans cosmid C17F3	2.00E+00
81	D88260	Pisum sativum PsCHS4 gene for chalcone synthase, complete cds	6.70E-01
82	D87433	Human mRNA for KIAA0246 gene, partial cds	2.30E-01
83	X70301	S.lemnae internal telomeric sequence maa81	2.30E-01
84	AB018249	Homo sapiens gene for CC chemokine LEC, complete cds	7.50E-02
85	D32072	Mouse mRNA for an isoform of TGF-b type II receptor	7.40E-02
86	AB018317.1	Homo sapiens mRNA for KIAA0774 protein, partial cds	1.90E+00
87	Z46372	R.norvegicus RNA for DNA topoisomerase II	7.20E-02
88	NM_003958 .1	Homo sapiens C3HC4-type zinc finger protein sapiens mRNA for KIAA0646 protein, complete cds	6.50E-01
89	AF005655	Eschscholzia californica berberine bridge enzyme (bbe1) gene, complete cds	7.70E-02
90	AF042192	Xenopus laevis paraxial protocadherin mRNA, complete cds	6.20E-01
91	Y12002	N.crassa DNA for protein kinase C homologue	2.20E-01
92	AF077697	HIV-1 isolate DW.s.0 from Switzerland pol protein (pol) gene, partial cds	2.00E-01
93	L31848	Homo sapiens serine/threonine kinase receptor 2	6.00E-11
94	AF047707	Rattus norvegicus UDP-glucose:ceramide glycosyltransferase mRNA, complete cds	6.00E-01
95	X92112	G.gallus mRNA for guanylate-binding protein	7.10E-02
96	X82333	H.sapiens IRLB gene (exon1-3)	5.30E-02
97	AJ228139.2	Homo sapiens mRNA for LETKI precursor	2.00E-97
98	M13075	Human albumin gene, exon 1 and 5' flank.	1.40E+00
99	AF025430	Papaver somniferum berberine bridge enzyme	2.90E-01
100	X92346	M.musculus mRNA for CART1 protein	1.70E-02
102	AE001367	Plasmodium falciparum chromosome 2, section 4 of 73 of the complete sequence	2.50E-02
103	AB014524	Homo sapiens mRNA for KIAA0624 protein, partial cds	0.00E+00
104	AB007546	Homo sapiens gene for LECT2, complete cds	2.20E-01
105	AF060492	Buchnera aphidicola succinyl-diaminopimelate aminotransferase (dapD) gene, partial cds; periplasmic serine protease (htrA), hypothetical protein, acetohydroxy acid synthase large subunit (ilvI), acetohydroxy acid synthas...	7.50E-02
106	D16360	Human DNA for plasma glutathione peroxidase, exon 1	2.50E-02

Table 2A: Nearest Neighbor (BlastN vs. Genbank)

SEQ ID	ACC'N	DESCRIP.	P VALUE
107	AB002287	Wolbachia sp. DNA for GroES protein homolog, GroEL protein homolog, partial cds	6.60E-01
108	X16349	Human gene for sex hormone-binding globulin (SHBG)	2.40E-02
109	Z97349	Plasmodium falciparum DNA *** SEQUENCING IN PROGRESS *** from contig 3-06, complete sequence	6.50E-01
110	L06898	Actinomyces viscosus sialidase (nanH) gene, complete cds.	2.20E-01
111	J03818	Rhesus monkey psi-eta-globin gene intergenic region, with Alu repeats.	2.10E-01
112	U66708	Vibrio parahaemolyticus ClpX-like protein (clpX) gene, partial cds, and lon protease (lonS) gene, complete cds	1.90E+00
113	AF078164.2	Homo sapiens Ku70-binding protein (KUB3) mRNA, partial cds	e-174
114	AJ010642	Drosophila melanogaster mRNA for Dof protein, transcript I, partial	1.90E+00
115	AF039096	Diadasia martialis cytochrome oxidase I (CO1) gene, mitochondrial gene encoding mitochondrial protein, partial cds	8.10E-01
116	L44593	Bacteriophage BK5-T ORF'410, 3' end pf cds, 20 ORFs, repressor protein, and Cro repressor protein genes, complete cds, ORF70' gene, 5' end of cds.	2.30E-01
117	U71249	Drosophila virilis cecropin 1 (Cec1), cecropin 2 complete cds and cecropin, pseudogene, exon 1	0.22
118	AL049223.1	Homo sapiens mRNA; cDNA DKFZp564L1916 (from clone DKFZp564L1916)	e-161
119	D13158.2	Bacillus sp. gene for thermostable alkaline protease, complete cds	0.69
120	M36287	S.cerevisiae alpha-aminoadipate reductase (LYS2) gene, complete cds.	6.70E-01
121	AF083457.1	Equus caballus microsatellite COR014 sequence	8.00E-03
122	X66015	T.aestivum mRNA 3 for cathepsin B (2557)	8.00E-03
123	U42767	Drosophila melanogaster leucine-rich repeat/Ig transmembrane protein KEK1 precursor (kek1) mRNA, complete cds	1.90E+00
124	X06670	Yeast NUC1 gene for mitochondrial nuclease	7.10E-02
125	Z49613	S.cerevisiae chromosome X reading frame ORF YJR113c	6.50E-01
126	U00038	Caenorhabditis elegans cosmid T21D11	2.20E-01
127	M60177	Escherichia coli enterobactin (entF) gene, complete cds.	6.50E-01
128	Z84506	H.sapiens flow-sorted chromosome 6 HindIII fragment, SC6pA28B10	2.10E-01
129	J00334	Monkey (rhesus) delta-globin pseudogene; 5' flank and exons 1 & 2.	2.10E-01

Table 2A: Nearest Neighbor (BlastN vs. Genbank)

SEQ ID	ACC'N	DESCRIP.	P VALUE
130	NM_002844.1	Homo sapiens protein tyrosine phosphatase, receptor type, K (PTPRK) mRNA phosphatase mRNA, complete cds	7.00E-03
131	U86751	Human nucleolar fibrillar center protein (ASE-1) mRNA, complete cds	8.00E-03
132	D63735	Distolasterias nipon DNA for 16S rRNA, partial sequence	3.00E-03
133	D13469	M.hyopneumoniae genome, repeated DNA sequence	7.60E-02
134	Z15030	H.sapiens gene for ventricular myosin light chain 2 >gi|340286|gb|L01652|HUMVMLC Human ventricular myosin light chain 2 gene, seven èxons.	7.60E-02
135	AL035426.2	Human DNA sequence from clone 370N13 on chromosome Xq25-26.3. Contains an exon of the GRIA3 gene for glutamate receptor, ionotrophic, AMPA 3. Contains ESTs, complete sequence [Homo sapiens]	2.20E-01
136	U61420	Human myosin VIIa (MYO7A) gene, exons 5, 6, 7, 8, 9, 10, 11, 12, 13 and 14	3.00E-03
137	AF155117.1	Homo sapiens NY-REN-62 antigen mRNA, partial cds	e-142
138	AE001129	Borrelia burgdorferi (section 15 of 70) of the complete genome	8.80E-02
139	AB014528	Homo sapiens mRNA for KIAA0628 protein, complete cds	2.00E-39
140	X85980	H.sapiens serine hydroxymethyltransferase pseudogene	2.40E-02
141	D16474	Human mRNA, Xq terminal portion	9.00E-04
142	NM_005180.1	Homo sapiens murine leukemia viral (bmi-1) oncogene homolog (BMI1) mRNA	8.00E-04
143	U78193	Borrelia burgdorferi tuf-s10 operon: elongation factor (tuf), ribosomal proteins S10 (rpsJ), L3 (rplC), L4 (rplD), L23 (rplW), L2 (rplB), S19 (rpsS), and L22 cds	1.00E-03
144	AF052168	Homo sapiens clone 24762 mRNA sequence	6.60E-01
145	NM_001863.1	Homo sapiens cytochrome c oxidase subunit VIb mRNA, complete sequence	9.00E-05
146	AB010273.1	Homo sapiens pshsp47 gene, complete cds	1.9
147	AL109729.1	Homo sapiens mRNA full length insert cDNA clone EUROIMAGE 123453	1E-81
148	U71187.1	Human cholesteryl ester transfer protein (CETP) gene, partial cds and promoter region	0.023
149	X90761	Homo sapiens hHa2 gene	0.0003
150	AF045742	Xenopus laevis Smad7 mRNA, complete cds	0.028
151	AL049300.1	Homo sapiens mRNA; cDNA DKFZp564P063 (from clone DKFZp564P063)	0.00001

Table 2A: Nearest Neighbor (BlastN vs. Genbank)

SEQ ID	ACC'N	DESCRIP.	P VALUE
152	AP000273.1	Homo sapiens genomic DNA, chromosome 21q22.1, D21S226-AML region, clone:f80G10, complete sequence	0.003
153	NM_001277 .1	Homo sapiens choline kinase (CHK) mRNA kinase	0.00003
154	AC001036	Homo sapiens (subclone 2_f7 from P1 H48) DNA sequence	0.002
155	U45432	Human ETV6 gene, promoter region and partial cds	0.008
156	AF045742	Xenopus laevis Smad7 mRNA, complete cds	0.25
157	X60175	D.silvestris clone U28T2 non-LTR retrotransposon DNA (3778 bp)	0.66
158	X93334	H.sapiens mitochondrial DNA, complete genome	0.00001
159	J04838	Human apolipoprotein B (APOB) gene, exons 21, 22 and 23.	0.000001
160	M94631	Hylobates lar (clone LambdaGialphaG1) 3'alpha1Alu1 D, 3'alpha1Alu1 E and 3'alpha1Alu1 F Alu repeat regions.	0.000003
161	Z81524	Caenorhabditis elegans cosmid F32H5, complete sequence [Caenorhabditis elegans]	0.71
162	U42364	Sus scrofa centromere-specific repeat, T32M clone, Mc2 satellite DNA amplified from S0048 primer set.	0.23
163	AJ238233.1	Homo sapiens RPC62 gene for RNA polymerase III subunit, exon 13	1E-35
165	AF030697	Homo sapiens semaphorin L (SEMAL) gene, partial cds	0.00000002
166	Y08639	H.sapiens mRNA for nuclear orphan receptor ROR-beta	0.092
167	X71934	H.sapiens XB gene for tenascin-X, repeat XIII	0.0001
168	M17374	X.laevis beta-globin mRNA, 5' UTR.	0.03
169	M65243	Synthetic mRNA leader sequence UTK.	0.083
170	NM_000999 .1	Homo sapiens ribosomal protein L38 (RPL38) mRNA >gi|407422|emb|Z26876|HSRPL38 H.sapiens gene for ribosomal protein L38	2E-09
171	X73501	H.sapiens gene for cytokeratin 20	3E-13
172	M17374	X.laevis beta-globin mRNA, 5' UTR.	9.00E-03
173	Z24233	H. sapiens (D12S352) DNA segment containing	2E-11
174	NM_003033 .1	Homo sapiens sialyltransferase 4A mRNA >gi|410225|gb|L13972|HUMSIAT Homo sapiens beta-galactoside alpha-2,3-sialyltransferase (SIAT4A) mRNA, complete cds	7.00E-13
175	AF039652	Homo sapiens ribonuclease H type II mRNA, complete cds	9E-88
176	Z23435	H. sapiens (D1S414) DNA segment containing (CA) repeat; clone AFM179xg5; single read	0.001
177	M17374	X.laevis beta-globin mRNA, 5' UTR.	0.009
178	AF128535.1	Mus musculus cytoplasmic phosphoprotein PACSIN2 mRNA, complete cds	2E-20
179	U19358	Saccharomyces cerevisiae dnaJ homolog Hlj1p	3.00E-14

Table 2A: Nearest Neighbor (BlastN vs. Genbank)

SEQ ID	ACC'N	DESCRIP.	P VALUE
180	AB011139	Homo sapiens mRNA for KIAA0567 protein, partial cds	4.00E-16
181	AF154851.1	Salvelinus alpinus mitochondrion complete genome	2.20E-01
182	AB028980.1	Homo sapiens mRNA for KIAA1057 protein, partial cds	4.00E-38
183	U39178	Human phosphodiesterase (PDEA) gene, intron 16, 3' end	1E-16
184	U02455	Cloning vector rpDR2, complete sequence.	6.00E-19
185	NM_006048.1	Homo sapiens clone 686 protein (KIAA0684) mRNA >gi|4104975|gb|AF043117|AF043117 Homo sapiens ubiquitin-fusion degradation protein 2 (UFD2) mRNA, complete cds	2.00E-64
186	AF002644	Limulus polyphemus cytochrome oxidase II complete sequence, ATP synthase 8 (ATPase 8) gene, complete cds, and ATP synthase 6 (ATPase 6) gene, partial cds, mitochond...	2.40E-02
187	Z58806	H.sapiens CpG island DNA genomic Mse1 fragment, clone 50f4, forward read cpg50f4.ft1a	6.00E-20
188	U58736	Caenorhabditis elegans cosmid EGAP7.	8.00E-03
189	V01270	R.norvegicus genes for 18S, 5.8S, and 28S ribosomal RNAs	6.00E-21
190	L42098	Homo sapiens (subclone 5_c7 from P1 H22) DNA sequence.	9.00E-14
191	Z63236	H.sapiens CpG island DNA genomic Mse1 fragment, clone 7f5, forward read cpg7f5.ft1d	2.00E-21
192	AF145957.2	Mus musculus groucho-related gene product	1.00E-57
193	NM_003193.1	Homo sapiens tubulin-specific chaperone e tubulin-folding cofactor E mRNA, complete cds	2.00E-23
194	U65980	Borrelia hermsii 38 kDa lipoprotein Gpd gene, complete cds	2.00E+00
195	U49974	Human mariner2 transposable element, complete consensus sequence	4.00E-28
196	Z47053	Human microsatellite DNA sequence	5E-29
197	X80424	M.musculus tex23 mRNA (5'region)	1.00E-27
198	U75467	Drosophila melanogaster Rga and Atu genes, complete cds	4.00E-28
199	U43077	Human CDC37 homolog mRNA, complete cds	1.00E-28
200	NM_000436.1	Homo sapiens 3-oxoacid CoA transferase mRNA >gi|1519051|gb|U62961|HSU62961 Human succinyl CoA:3-oxoacid CoA transferase precursor (OXCT) mRNA, complete cds	2.00E-29
201	NM_003979.1	Homo sapiens retinoic acid induced 3 (RAI3) mRNA >gi|4063889|gb|AF095448|AF095448 Homo sapiens putative G protein-coupled receptor (RAIG1) mRNA, complete cds	e-158
202	Z22466	H.sapiens DNA sequence	5E-30

Tabl 2A: Nearest Neighbor (BlastN vs. Genbank)

SEQ ID	ACC'N	DESCRIP.	P VALUE
203	X15880	Human mRNA for collagen VI alpha-1 C-terminal globular domain	7.00E-33
204	U47322	Cloning vector DNA, complete sequence.	8E-34
205	Z55306	H.sapiens CpG island DNA genomic Mse1 fragment, clone 32a6, forward read cpg32a6.ft1a	2E-20
206	AC005190	Homo sapiens PAC clone DJ1152D16 from Xq23, complete sequence [Homo sapiens]	1.00E-26
207	Z56833	H.sapiens CpG island DNA genomic Mse1 fragment, clone 14e3, reverse read cpg14e3.rt1b	7.00E-11
208	D38101	Rat rCACN4A mRNA for L-type voltage-dependent calcium channel alpha 1 subunit, complete cds	2.40E-02
209	Z56833	H.sapiens CpG island DNA genomic Mse1 fragment, clone 14e3, reverse read cpg14e3.rt1b	6.00E-11
212	NM_002004 .1	Homo sapiens farnesyl diphosphate synthase dimethylallyltranstransferase, geranyltranstransferase) for KIAA0003 gene, complete cds	2.00E-43
213	AB023234.1	Homo sapiens mRNA for KIAA1017 protein, complete cds	e-172
214	NM_003492 .1	Homo sapiens ITBA1 gene (ITBA1) mRNA protein	1.00E-49
215	X52994	Sheep mRNA for CD3 gamma subunit (partial)	5.00E-08
216	AF059650	Homo sapiens histone deacetylase 3 (HDAC3) gene, complete cds	6.80E-01
217	U49046	Mus musculus zinc finger protein (Zfp64) mRNA, complete cds	3.00E-55
218	NM_003488 .1	Homo sapiens A kinase anchor protein, 149kD mRNA for kinase A anchor protein	3.00E-21
219	J03764	Human, plasminogen activator inhibitor-1 gene, exons 2 to 9.	3.00E-26
220	Y16675	Homo sapiens mRNA for aflatoxin B1-aldehyde reductase	8.00E-03
221	AF085715	Mus musculus homeobox protein SPX1 mRNA, complete cds	2.10E-01
222	X76968	Loligo forbesi mRNA for phosphatidylinositol-specific phospholipase C	1.9
223	X55741	H.sapiens FKBP cDNA	2.00E-65
224	X85060	B.taurus cosmid-derived microsatellite DNA	3.00E-76
225	AJ001119	Bos taurus mRNA for Rab5 GDP/GTP exchange factor, Rabex5	3E-79
226	D63850	Mus musculus mRNA for hepatoma-derived growth factor, complete cds, strain:BALB/c	e-102
227	AB018344.1	Homo sapiens mRNA for KIAA0801 protein, complete cds	e-169
228	X81058	M.musculus tex261 mRNA	e-112

Table 2A: Nearest Neighbor (BlastN vs. Genbank)

SEQ ID	ACC'N	DESCRIP.	P VALUE
229	AF041853	Homo sapiens kinesin family member protein KIF3A mRNA, complete cds	e-162
234	AB020395	Taenia taeniaeformis mitochondrial DNA for large subunit ribosomal RNA, partial sequence	1.90E+00
235	AF120325.1	Cricetulus griseus class I beta tubulin gene, complete cds	1.80E+00
237	AF084259	Mus musculus bromodomain-containing protein BP75 mRNA, complete cds	0.64
239	M77820	Xenopus laevis fibronectin mRNA, complete cds.	2
241	AB007930	Homo sapiens mRNA for KIAA0461 perotein, partial cds	e-178
242	D87463	Human mRNA for KIAA0273 gene, complete cds	2
244	AF094519	Mus musculus diaphanous-related formin (Dia2) mRNA, complete cds	e-143
246	Z69708	Human DNA sequence from cosmid L241B9, Huntington's Disease Region, chromosome 4p16.3 contains polymorphic VNTR pYNZ32	2
247	AF156102.1	Homo sapiens ELL complex EAP30 subunit mRNA, complete cds	e-169
248	L36592	Homo sapiens kidney epithelial sodium channel gamma subunit (gamma hENaC) mRNA, complete cds.	0.63
250	AF039945	Homo sapiens synaptojanin 2B mRNA, partial cds	2.1
252	U29487	Caenorhabditis elegans cosmid C09C7	0.71
253	NM_003794 .1	Homo sapiens sorting nexin 4 (SNX4) mRNA nexin 4 mRNA, complete cds	e-151
255	AE001267	Treponema pallidum section 83 of 87 of the complete genome	6.70E-01
256	NM_005686 .1	Homo sapiens SRY (sex determining region Y)-box 13 (SOX13) mRNA >gi|4323170|gb|AF098915|AF098915 Homo sapiens type 1 diabetes autoantigen ICA12 mRNA, complete cds	0.23
257	Z49373	S.cerevisiae chromosome X reading frame ORF YJL098w	2
258	AF125392.1	Homo sapiens insulin induced protein 2 mRNA, complete cds	8.00E-96
260	X07618	Human mRNA for cytochrome P450 db1 variant a	6.90E-01
261	AB022161.1	Mus musculus Cctq gene for chaperonin containing TCP-1 theta subunit, complete cds	0.7
262	AF001794	Mus musculus Treacher Collins Syndrome protein	0.69
263	AF119362.1	Mus musculus strain 129/SvJ mast cell protease 8 (Mcpt8) gene, complete cds	0.22
264	AE001395	Plasmodium falciparum chromosome 2, section 32 of 73 of the complete sequence	6.80E-01
265	U19775	Human MAP kinase Mxi2 (MXI2) mRNA, complete cds	2.10E+00

Table 2A: Nearest Neighbor (BlastN vs. Genbank)

SEQ ID	ACCN	DESCRIP.	P VALUE
266	AJ131389	Homo sapiens mRNA for PEX3 protein, partial	e-171
267	M25779	S.cerevisiae SEC59 gene, complete cds.	1.90E+00
268	AF009953	Glycine max 35 kDa seed maturation protein	0.66
269	Z35284	H.sapiens mRNA for MDR3 P-glycoprotein	2.40E-02
270	AF050052	Pleurocera prasinatum strain 12B-1 16S ribosomal RNA gene, mitochondrial gene for mitochondrial RNA, partial sequence	6.60E-01
271	AF043494	Pinus strobus microsatellite RPS3 repeat region	6.60E-01
272	NM_001388.1	Homo sapiens developmentally regulated GTP-binding protein 2 (DRG2) mRNA GTP-binding protein	0.65
273	NM_000242.1	Homo sapiens mannose-binding lectin, soluble mannose-binding protein C	6.90E-01
274	S82740	NPM/ALK=fusion gene {translocation breakpoint}	7.10E-01
275	AB006621	Homo sapiens mRNA for KIAA0283 gene. partial cds	1.90E+00
276	AB023162.1	Homo sapiens mRNA for KIAA0945 protein, complete cds	e-169
277	AF124490.1	Homo sapiens ARF GTPase-activating protein GIT1 mRNA, complete cds	e-173
278	L29454	Mouse fibrillin (Fbn-1) mRNA. complete cds.	0.64
279	AB018264.1	Homo sapiens mRNA for KIAA0721 protein. partial cds	e-148
280	AF046000	Mus musculus rod cGMP phosphodiesterase delta subunit (Pde6d) gene, complete cds	0.52
281	X86791	S.scrofa beta-globin gene	0.37
282	AL050368.1	Homo sapiens mRNA: cDNA DKFZp566A1124	2.1
283	AF174426.1	Acholeplasma laidlawii DNA topoisomerase IV ParE subunit (parE) and DNA topoisomerase IV ParC subunit (parC) genes, partial cds	2.1
284	AJ009770	Homo sapiens mRNA for putative transcription factor, partial	e-165
285	U89992	Mus musculus lymphocyte-specific adaptor protein Lnk (Lnk) mRNA, complete cds	0.23
287	AF132479	Mus musculus Ese2L protein mRNA. complete cds	0.7
288	X76753.2	Homo sapiens HG 5-HTT gene for serotonin transporter, exon 1	2.1
289	D64033	Oryzias latipes DNA for transferrin, complete cds	0.23
290	D29985	Bacillus subtilis wapA and orf genes for wall-associated protein and hypothetical proteins	0.68
291	AL049442.1	Homo sapiens mRNA; cDNA DKFZp586N1720 (from clone DKFZp586N1720)	e-166

Table 2A: Nearest Neighbor (BlastN vs. Genbank)

SEQ ID	ACC'N	DESCRIP.	P VALUE
292	S64907	cgs2+=cyclic AMP dependent protein kinase regulatory subunit homolog [Schizosaccharomyces pombe=fission yeast, Genomic, 3596 nt]	0.68
293	AF027202	Bos taurus rod outer segment guanylate cyclase precursor (ROS-GC1) gene, exons 9 through 11	2
294	AB011540	Homo sapiens mRNA for MEGF7, partial cds	0.076
295	AL096842.1	Homo sapiens mRNA; cDNA DKFZp586D1519 (from clone DKFZp586D1519)	e-177
296	D78503.1	Mus musculus seizure-related mRNA, partial sequence	0.68
297	AF079557	Mus musculus poly(ADP-ribose) glycohydrolase	2
298	Z66316	H.sapiens CpG island DNA genomic Mse1 fragment, clone 8a6, forward read cpg8a6.ft1f	0.22
299	U86453	Human phosphatidylinositol 3-kinase catalytic subunit p110delta mRNA, complete cds	2.1
300	AJ000467.1	Crocidura russula partial mitochondrial cytb gene >gi|3319900|emb|AJ000468.1|CRAJ468 Crocidura russula partial mitochondrial cytb gene	0.22
301	X63721	S.cerevisiae HEM12 gene for uroporphyrinogen decarboxylase	0.67
302	AJ005390.1	Homo sapiens SCNN1B gene, exons 9 and 10	0.23
303	X06150	Rat mRNA for glycine methyltransferase (EC 2.1.1.20)	0.22
304	X63771.1	Soybean Mosaic Virus gene for coat protein	2
305	AF113615.1	Homo sapiens FH1/FH2 domain-containing protein FHOS (FHOS) mRNA, complete cds	e-176
306	AF052193	Gallus gallus translation repressor mRNA, partial cds	0.66
307	D13903	Mouse mRNA for MPTPdelta (type A)	0.22
308	M77144	Human type II 3-beta hydroxysteroid dehydrogenase/ 5-delta - 4-delta isomerase gene, complete cds.	0.22
309	AJ236656	Homo sapiens chromosome 22 CpG island DNA, genomic Mse1 fragment, clone 22CGIB49B8 , complete read	0.66
310	M84732	Plasmodium yoelii sporozoite surface protein 2 gene	0.22
311	X83433	O.sativa mRNA for lipid transfer protein, b21	0.66
312	AP000145.1	Homo sapiens genomic DNA, chromosome 21q21.2, LL56-APP region, clone B2291C14-R44F3, segment 10/10, complete sequence	0.0000004
313	AB025570.1	Equus caballus CgA mRNA for chromogranin A, complete cds	0.22
314	AF006482	Mus musculus nucleoside triphosphatase	0.69
315	AF141308.1	Homo sapiens polyamine modulated factor-1	0.65

Table 2A: Nearest Neighbor (BlastN vs. Genbank)

SEQ ID	ACC'N	DESCRIP.	P VALUE
316	AF092945	Charybdis feriatus molt-inhibiting hormone	0.22
317	D90773	E.coli genomic DNA, Kohara clone #262(30.3-30.5 min.)	1.9
318	D26077	Mouse mRNA for KIF3B protein, complete cds	0.21
319	U68036	Streptomyces coelicolor bldKA, bldKB, bldKC, and bldkD genes, complete cds, and bldkE gene, partial cds	0.64
321	X75563	S.oleracea mRNA (omp24) for chloroplast outer envelope 24 kD protein	0.68
322	AB006628	Homo sapiens mRNA for KIAA0290 gene, partial cds	0.21
323	AJ238878.1	Haloferax volcanii ORF1, strain WR340	0.21
324	U39696	Mycoplasma genitalium section 18 of 51 of the complete genome	0.21
326	AL031590	Human DNA sequence from clone 232D4 on chromosome 22q13.1 Contains GSS, complete sequence [Homo sapiens]	0.67
327	AF103731.1	Homo sapiens putative glycolipid transfer protein mRNA, complete cds	e-168
328	U88984	Mus musculus NIK mRNA, complete cds	0.22
329	AJ006031	Mus musculus IHABP gene, promoter	2E-40
330	AL049953.1	Homo sapiens mRNA: cDNA DKFZp564P0622	6E-52
331	L49144	Homo sapiens neuroendocrine-specific protein	0.81
332	U25810	Bos taurus lysozyme (LZ) gene, complete cds	0.000004
333	AF092681	Exema neglecta haplotype 188 cytochrome oxidase I (COI) gene, mitochondrial gene encoding mitochondrial protein, partial cds	0.77
334	AE000966	Archaeoglobus fulgidus section 141 of 172 of the complete genome	2.1
335	AF091234	Mus musculus putative transcription factor mRNA, complete cds	4E-90
336	M25702	Human thyroid peroxidase (TPO) gene, exon 2.	0.078
337	Z70029	B.vulgaris mitochondrial DNA, RAPD fragment	0.075
338	AF072432	Dictyostelium discoideum gp63 homolog mRNA, complete cds	0.69
339	M13241	Human N-myc gene, exons 2 and 3.	0.074
340	X07703	Chironomus tentans Balbiani ring gene BR6 3'-end	0.076
341	X57564	A.rusticana mRNA for neutral peroxidase	0.077
342	Z74084	S.cerevisiae chromosome IV reading frame ORF YDL036c	2
343	U30248	Caenorhabditis elegans transcription factor E12/47 homolog gene, complete cds	2.1
344	Y09396	C.annuum mRNA for CDC48p-like protein	2
345	Z92835	Caenorhabditis elegans cosmid H19N07, complete sequence [Caenorhabditis elegans]	0.68

Table 2A: Nearest Neighbor (BlastN vs. Genbank)

SEQ ID	ACC'N	DESCRIP.	P VALUE
346	M92844	Homo sapiens zinc finger transcriptional regulator (GOS24) gene, complete cds	2
347	X54111	Treponema pallidum GroEL gene and gene encoding putative enol-pyruvyltransferase	0.22
348	Z71419	S.cerevisiae chromosome XIV reading frame ORF YNL143c	0.64
349	AL034486	S.pombe chromosome I cosmid c2H10	1.9
350	NM_000127 .1	Homo sapiens exostoses (multiple) 1 (EXT1) mRNA	2
351	U61997	Zea mays B chromosome centromere repeat K11 sequence	0.074
352	AB018255.1	Homo sapiens mRNA for KIAA0712 protein, complete cds	7E-43
353	S60289	LeB4=legumin {5' region} [Vicia faba, Genomic, 1222 nt]	0.072
354	AE001391	Plasmodium falciparum chromosome 2, section 28 of 73 of the complete sequence	0.24
357	U67478	Methanococcus jannaschii section 20 of 150 of the complete genome	0.068
358	AE001146	Borrelia burgdorferi (section 32 of 70) of the complete genome	1.9
359	U46542	Streptococcus crista HmpA gene, partial cds, putative adhesin/ABC transport system protein (scbA) gene, complete cds	0.073
360	Z36067	S.cerevisiae chromosome II reading frame ORF YBR198c	1.3
361	U78684	Teucridium parvifolium NADH dehydrogenase (ndhF) gene, chloroplast gene encoding chloroplast protein, partial cds	0.29
362	AF037332	Homo sapiens Eph-like receptor tyrosine kinase hEphB1b (EphB1) mRNA, complete cds	0.26
363	U54469	Drosophila melanogaster eukaryotic initiation factors 4E-I and 4E-II (eIF4E) gene, complete cds.	0.24
364	U20611	Mus musculus thioredoxin-dependent peroxide reductase (tpx) mRNA, complete cds.	0.027
365	L34542	Rattus norvegicus non-receptor protein kinase	0.7
366	Y14993	Schizosaccharomyces pombe gut2 gene	0.23
367	AL008983	Plasmodium falciparum DNA *** SEQUENCING IN PROGRESS *** from contig 3-54, complete sequence	0.025
368	AL080129.1	Homo sapiens mRNA; cDNA DKFZp434D193 (from clone DKFZp434D193)	e-100
369	AF100304	Caenorhabditis elegans cosmid W07B3	0.65
370	AF039527	Bacillus stearothermophilus limonene hydroxylase (pOT435) gene, complete cds	0.22
371	AP000258.1	Homo sapiens genomic DNA, chromosome 21q22.1, D21S226-AML region, clone:Q89A6, complete sequence	0.00001

Table 2A: Nearest Neighbor (BlastN vs. Genbank)

SEQ ID	ACC'N	DESCRIP.	P VALUE
372	AF082519	Entamoeba histolytica 70 kDa heat shock protein Hsp70-Bip precursor (BiP) gene, complete cds	0.0009
373	M38224	T.brucei procyclic acidic repetitive protein	1.9
374	Z70720	S.pombe chromosome I cosmid c1B9	0.65
375	AF069532	Homo sapiens CDP-diacylglycerol synthase 2	5E-20
376	X97570	Z.mays dek34 gene	0.22
377	NM_004652 .1	Homo sapiens ubiquitin specific protease 9, X chromosome (Drosophila fat facets related) (USP9X) mRNA ubiquitin hydrolase	0.023
378	AJ223578	Branchiostoma lanceolatum mRNA for intermediate filament protein C2	0.024
379	D63523.1	Dictyostelium discoideum mitochondrial genes for ribosomal proteins, complete and partial cds	0.22
380	L35528	Mus musculus manganese superoxide dismutase	0.074
381	NM_004267 .1	Homo sapiens carbohydrate (chondroitin 6/keratan) sulfotransferase 2 (CHST2) mRNA mRNA for N-acetylglucosamine-6-O-sulfotransferas e mRNA for long form of N-acetylglucosamine-6-O-sulfotransferase (GlcNAc6ST), complete cds	0.003
382	Z81507	Caenorhabditis elegans cosmid F18A11, complete sequence [Caenorhabditis elegans]	1.9
383	AF072506.2	Homo sapiens endogenous retrovirus W envelope protein precursor mRNA, complete cds	0.75
384	U39730	Mycoplasma genitalium cdsA, frr, hsdS, smbA, tsf genes from bases 539564 to 546816 (section 52 of 56) of the complete genome	0.009
385	L20296	Saccharomyces cerevisiae (chromosome II) ARO4-homologue (YBR1701), YBR1702, YBR1703, 30S ribosomal protein-homologue (YBR1704) and pseudoprotease-homologue	2
386	D50500	Mouse mRNA for Rab 11, partial sequence	0.22
387	X52263	C.tentans balbiani ring 3 (BR3) gene	2
388	M68998	Human alpha-1 type XIII collagen (COL13A1) gene, exon 1.	0.008
389	L40608	Plasmodium falciparum (strain Dd2) variant-specific surface protein (var-1) gene, complete cds.	2
390	D12688	Mouse P-cadherin gene, exon 1 and 2	2
391	AE001150	Borrelia burgdorferi (section 36 of 70) of the complete genome	0.008
392	X80852	M.musculus gene for liver type phosphofructokinase	0.073
393	AF115849.1	Trichomonas vaginalis pre-mRNA processing 8 protein homolog PRP8 (PRP8) gene, complete cds	2

Table 2A: Nearest Neighbor (BlastN vs. Genbank)

SEQ ID	ACC'N	DESCRIP.	P VALUE
394	L31848	Homo sapiens serine/threonine kinase receptor 2	0.069
395	AJ003222	Borrelia burgdorferi flgK, flbF, thdF, gidA, gidB, moxR, orf1, orf2, orf3, orf4 and orf5 genes	0.006
396	AB028958.1	Homo sapiens mRNA for KIAA1035 protein, partial cds	0.055
397	AF155110.1	Homo sapiens NY-REN-45 antigen mRNA, complete cds	0.07
398	M24842	Human keratin 18 (K18) gene, complete cds.	e-142
399	AL050074.1	Homo sapiens mRNA; cDNA DKFZp566F1946	e-171
401	D13469	M.hyopneumoniae genome, repeated DNA sequence	0.003
402	U67510	Methanococcus jannaschii section 52 of 150 of the complete genome	0.074
403	AB029343.1	Homo sapiens HCR (a-helix coiled-coil rod homologue) gene, complete cds	0.21
404	L43391	Homo sapiens (subclone 5_g12 from P1 H16) DNA sequence.	0.7
405	AF016864.1	Orpinomyces sp. PC-2 beta-glucosidase (bgl1) mRNA, complete cds	0.22
406	L31848	Homo sapiens serine/threonine kinase receptor 2	0.072
407	X65521	K.lactis centromere 2 (KlCEN2) DNA	0.024
408	U56221	HIV-1 clone 13Pb9-4 from Seattle, envelope glycoprotein, V3-V5 region (env) gene, partial cds	0.22
409	AF157816.1	Homo sapiens cAMP specific phosphodiesterase products, complete cds	2E-11
410	AF131748	Homo sapiens clone 25191 GTP-specific succinyl-CoA synthetase beta subunit (SCS) mRNA sequence, partial cds	0.23
411	AF034783	Synthetic helper virus genomic sequence fragment	2
412	AF035606	Homo sapiens calcium binding protein (ALG-2) mRNA, complete cds	0.000004
413	L07944	Plasmodium falciparum secreted polymorphic antigen gene, complete cds	0.001
414	AE001418	Plasmodium falciparum chromosome 2, section 55 of 73 of the complete sequence	0.026
415	Z68886	Human DNA sequence from cosmid L21F12, Huntington's Disease Region, chromosome 4p16.3	7E-12
416	X82192	H.sapiens EST mRNA (G5)	0.23
417	NM_004998 .1	Homo sapiens myosin IC (MYO1C) mRNA complete cds.	0.0001
418	U55042	Bos taurus myosin X, complete cds	0.2

Table 2A: Nearest Neighbor (BlastN vs. Genbank)

SEQ ID	ACC'N	DESCRIP.	P VALUE
419	AF026069.1	Homo sapiens phosphomevalonate kinase	0.66
420	AL080128.1	Homo sapiens mRNA; cDNA DKFZp434C153 (from clone DKFZp434C153)	0.62
421	S75476	PGK1=phosphoglycerate kinase 1 {3' nuclease-sensitive region} [human, Genomic, 3571 nt]	0.00003
422	M57682	Rat brain calcium channel alpha-1 subunit mRNA, complete cds.	0.0001
423	AB023053.1	Homo sapiens genomic DNA, chromosome 6p21.3, HLA class I region, clone:53L9, complete sequence	0.074
424	U74651	Human DNA polymerase gamma (polg) gene, promoter region and partial cds	7E-11
426	X86336	H.sapiens C7 gene, exon 9	0.026
427	AB000931.2	Homo sapiens FUT2 gene, intron 1, complete sequence	0.0003
428	U20365	Mus musculus smooth muscle gamma-actin gene, complete cds	0.0003
429	AF136745.1	Homo sapiens diacylglycerol kinase epsilon gene, promoter and partial cds	0.0000001
430	X04249	Human gene for small cytoplasmic 7SL RNA (7L30.1) pseudogene	0.000001
431	AB029016.1	Homo sapiens mRNA for KIAA1093 protein, partial cds	0.00000005
432	AE001421	Plasmodium falciparum chromosome 2, section 58 of 73 of the complete sequence	0.001
433	AB023189.1	Homo sapiens mRNA for KIAA0972 protein, complete cds	0.003
434	U68061	Human MUC2 gene, promoter region	0.000001
435	NM_005971 .1	Homo sapiens phospholemman-like, expressed in breast tumors, 8kD (PLML) mRNA protein	5E-09
436	AC001050	Homo sapiens (subclone 3_e9 from P1 H55) DNA sequence	5E-09
437	AF151843.1	Homo sapiens CGI-85 protein mRNA, complete cds	1E-35
438	U26447	Human natural resistance-associated macrophage protein (NRAMP1) gene, 3' region	6E-10
439	Z95309	Caenorhabditis elegans cosmid H36L18, complete sequence [Caenorhabditis elegans]	2
440	AF144622.1	Homo sapiens beta-catenin gene, intron 2 and partial cds	2
441	J04990	Human cathepsin G gene, complete cds.	0.0000001
442	U22657	Mus musculus genomic locus related to cellular morphology.	0.076

Table 2A: Nearest Neighbor (BlastN vs. Genbank)

SEQ ID	ACC'N	DESCRIP.	P VALUE
443	AP000262.1	Homo sapiens genomic DNA, chromosome 21q22.1, D21S226-AML region, clone:S680, complete sequence	2E-12
444	AF115549.2	Homo sapiens Wiskott-Aldrich Syndrome protein flanking region	6E-21
445	M55409	Homo sapiens pancreatic tumor-related protein mRNA, partial cds	8E-13
446	NM_006530.1	Homo sapiens Glioma-amplified sequence-41 GAS41 protein mRNA, complete cds	e-154
447	U30261	Schistosoma mansoni G protein beta subunit-like protein trans-spliced mRNA, complete cds	3E-14
448	AF132966.1	Homo sapiens CGI-32 protein mRNA, complete cds	e-169
449	M15205	Human thymidine kinase gene, complete cds, with clustered Alu repeats in the introns.	1E-14
450	X92565	C.elegans mRNA for LIN-2B protein	0.0000001
451	NM_006466.1	Homo sapiens polymerase (RNA) III (DNA directed) (39kD) (RPC39) mRNA subunit (RPC39) mRNA, complete cds	3E-15
452	AF086460	Homo sapiens full length insert cDNA clone ZD85A02	e-117
453	L35664	Homo sapiens (subclone H8 8_f5 from P1 35 H5 C8) DNA sequence.	2E-10
454	X69951	H.sapiens gene for casein kinase II alpha subunit	2E-20
455	AB007930	Homo sapiens mRNA for KIAA0461 perotein, partial cds	e-177
456	L81840	Homo sapiens (subclone 1_f8 from P1 H43) DNA sequence	1E-27
457	X94354	H.sapiens DNA for Cone cGMP-PDE gene	4E-17
458	AB024291.1	Zea mays ZmRR2 mRNA, complete cds	0.025
459	Y16790	Homo sapiens hHa4 gene, complete CDS	0.66
460	U67209	Human clone HS2.10 Alu-Ya5 sequence	2E-19
461	M30951	Gorilla 28S ribosomal RNA gene fragment.	5E-20
462	AF029062	Homo sapiens DEAD-box protein (BAT1) gene, partial cds	1E-18
463	AB014601	Homo sapiens mRNA for KIAA0701 protein, partial cds	1E-14
464	M30950	Chimpanzee 28S ribosomal RNA gene fragment.	6E-21
465	AB005619	Gallus gallus mRNA for chromobox protein	3E-26
466	AF070657	Homo sapiens glutathione S-transferase subunit 13 homolog mRNA, complete cds	2E-54
467	M58775	Polaribacter glomeratus 16S ribosomal RNA	2.1
468	AJ000992.1	Dictyostelium discoideum gdt1 gene	0.67
469	AB014589	Homo sapiens mRNA for KIAA0689 protein, partial cds	e-158
470	Z63830	H.sapiens CpG island DNA genomic Mse1 fragment, clone 90h2, reverse read cpg90h2.rt1a	3E-26

Table 2A: Nearest Neighbor (BlastN vs. Genbank)

SEQ ID	ACC'N	DESCRIP.	P VALUE
471	NM_002273.1	Homo sapiens keratin 8 (KRT8) mRNA keratin 8	e-120
472	AF116910.1	Homo sapiens clone HAW100 putative ribonuclease III mRNA, complete cds	e-173
473	AF131739	Homo sapiens clone 25189 mRNA sequence, complete cds	e-124
474	AF100615.1	Homo sapiens chromosome 15 MRG15 protein	7E-74
475	AB019490.1	Homo sapiens IDN4-GGTR7 mRNA, partial cds	e-156
476	L20941	Human ferritin heavy chain mRNA, complete cds.	1E-27
477	AF088022	Homo sapiens full length insert cDNA clone ZC18H06	5E-30
478	L06845	Human cysteinyl-tRNA synthetase mRNA, partial cds.	1E-39
479	AB014542	Homo sapiens mRNA for KIAA0642 protein, partial cds	2E-54
480	L77890	Homo sapiens excision repair protein ERCC4 mRNA, complete cds, clone cer4-40	2E-30
481	L32838	Mouse germline interleukin 1 receptor antagonist	0.076
482	NM_004537.1	Homo sapiens nucleosome assembly protein 1-like 1 (NAP1L1) mRNA >gi|189066|gb|M86667|HUMNAP H.sapiens NAP (nucleosome assembly protein) mRNA, complete cds	e-123
483	U85258	Human estrogen related receptor alpha (ESTRRA) pseudogene	8E-34
484	U79656	Human Treacher Collins syndrome (TCOF1) gene, exon 21	8E-34
485	AF067864.1	Homo sapiens transferrin receptor 2 alpha	4E-91
486	X03100	Human HLA-SB(DP) alpha gene	1E-16
487	AF013277	Bombyx mori topoisomerase II (TOPOII) mRNA, complete cds	0.23
488	U46068	Mus musculus von Ebner minor salivary gland protein mRNA, complete cds.	1E-35
489	U67563	Methanococcus jannaschii section 105 of 150 of the complete genome	1E-35
490	AB016492.1	Homo sapiens hJTB gene, complete cds	e-118
491	X98176	H.sapiens mRNA for MACH-beta-1 protein	1E-36
492	AF049613	Homo sapiens huntingtin interacting protein HYPK mRNA, partial cds	7E-22
493	AF039690.1	Homo sapiens antigen NY-CO-8 (NY-CO-8) mRNA, partial cds	1E-37
494	NM_001003.1	Homo sapiens ribosomal protein, large, P1 ribosomal phosphoprotein P1 mRNA, complete cds.	4E-38

Table 2A: Nearest Neighbor (BlastN vs. Genbank)

SEQ ID	ACC'N	DESCRIP.	P VALUE
495	U34305	Shigella sonnei form I operon ORF protein genes, complete cds, insertion sequence IS630 protein gene, complete cds.	0.074
496	U61538	Human calcium-binding protein chp mRNA, complete cds	4E-38
497	AJ243512.1	Homo sapiens mRNA for Barx2 protein (Barx2 gene)	1E-46
498	AF077043.1	Homo sapiens 60S ribosomal protein L36 mRNA, complete cds	4E-59
499	Y14223	Homo sapiens BPI gene, exon 9	0.00001
500	X07425	Human gene for U 6 RNA	1E-35
501	U43508	Mus musculus RORgamma orphan nuclear receptor mRNA, complete cds	0.23
502	Z92541	Human DNA sequence from PAC 179I15, BRCA2 gene region chromosome 13q12-13 contains lactase-phlorizin hydrolase (LCT)	0.078
503	X57435	H.sapiens mRNA for transcription factor AP-4	0.26
504	X70154	Z.mays mRNA for b-32 protein, putative regulatory factor of zein expression (clone b-32.152)	2.1
505	AF069737	Xenopus laevis notchless (nle) mRNA, complete cds	2E-94
506	D63850	Mus musculus mRNA for hepatoma-derived growth factor, complete cds, strain:BALB/c	5E-50
507	NM_006295 .1	Homo sapiens valyl-tRNA synthetase 1 (VARS1) mRNA	2E-50
508	Y16355	Homo sapiens mRNA for protein encoded by cxorf5 (71-7A) gene, alternatively spliced form	e-157
509	U67317	Cuphea wrightii beta-ketoacyl-ACP synthase II	0.68
510	NM_006571 .1	Homo sapiens novel RGD-containing protein mRNA, complete cds	1E-56
511	NM_003574 .1	Homo sapiens VAMP (vesicle-associated membrane protein)-associated protein A (33kD) (VAPA) mRNA, and translated products VAMP-associated protein of 33 kDa (VAP-33) mRNA, complete cds	e-129
512	NM_003431 .1	Homo sapiens zinc finger protein 124 (HZF-16) HZF-16=Kruppel-related zinc finger gene homolog HEP-G2, mRNA, 2080 nt]	2E-60
513	J03798	Human autoantigen small nuclear ribonucleoprotein Sm-D mRNA, complete cds.	2E-72
514	AL049670.1	Human gene from PAC 69E11, chromosome 1	e-174
515	AB014603	Homo sapiens mRNA for KIAA0703 protein, complete cds	e-167
516	NM_000977 .1	Homo sapiens ribosomal protein L13 (RPL13) mRNA >gi|29382|emb|X64707|HSBBC1 H.sapiens BBC1 mRNA	2E-63

Table 2A: Nearest Neighbor (BlastN vs. Genbank)

SEQ ID	ACC'N	DESCRIP.	P VALUE
517	Z55204	H.sapiens CpG island DNA genomic Mse1 fragment, clone 26c2, reverse read cpg26c2.rt1a	1E-28
518	AC002181	Homo sapiens (subclone 2_a12 from BAC H111) DNA sequence	0.001
519	NM_006371 .1	Homo sapiens cartilage-associated protein sapiens mRNA for cartilage-associated protein (CASP)	e-171
520	AF102507.1	Homo sapiens fizzy-related protein mRNA, partial cds	e-153
521	U91561	Rattus norvegicus pyridoxine 5'-phosphate oxidase mRNA, complete cds	e-100
522	X56974	M.musculus mRNA for external transcribed spacer	e-163
523	AF060539	Mus musculus channel interacting PDZ domain protein mRNA, complete cds	e-138
524	AF071592	Homo sapiens kinesin superfamily motor KIF4 mRNA, complete cds	0
525	X68199	R.norvegicus MYR1 mRNA for myosin I heavy chain	e-128
526	NM_006693 .1	Homo sapiens no arches-like (zebrafish) zinc finger protein (NAR) mRNA >gi|4098571|gb|U79569|HSU79569 Human no arches (nar) mRNA, complete cds	e-160
527	Z22818	Canis familiaris mRNA for Rab12 protein	e-159
529	AF077330	Mus musculus NEDD8-conjugating enzyme (Uba3) mRNA, complete cds	0.62
532	AF118268.1	Coprinus cinereus laccase 2 precursor (lcc2) gene, complete cds	2
533	AF118268.1	Coprinus cinereus laccase 2 precursor (lcc2) gene, complete cds	1.9
534	U33265	Coccidioides immitis complement fixation/chitinase antigen mRNA, complete cds	1.8
538	AF079867.1	Acomys cahirinus clone pAcah3 satellite sequence	1.8
539	NM_001324 .1	Homo sapiens cleavage stimulation factor, 3' pre-RNA, subunit 1, 50kD (CSTF1) mRNA pZ50-19) cleavage stimulation factor 50kDa subunit, complete cds.	0.69
540	AB012265	Mus musculus mRNA for wizL, complete cds	0.64
541	Y18504.1	Homo sapiens X5L gene	e-151
542	AF034265	Gracilaria chilensis 18S ribosomal RNA gene, partial sequence; internal transcribed spacer 1, 5.8S ribosomal RNA gene and internal transcribed spacer 2, complete sequence; and 25S ribosomal RNA gene, partial sequence	0.62
543	U16163	Mus musculus prolyl 4-hydroxylase alpha(II)-subunit mRNA, complete cds	0.62

SEQ ID	ACC'N	DESCRIP.	P VALUE
544	U53004	Human GT335 gene, exons 1, 2, 3, and 4	0.61
545	Y13870.1	Homo sapiens mRNA containing (CAG)6 repeat, clone CZ-CAG 12	0.22
546	AF127950.1	Homo sapiens DNA polymerase epsilon catalytic subunit protein (POLE1) gene, exons 17, 18 and 19	0.21
547	AF071538	Homo sapiens Ets transcription factor PDEF	e-166
548	D63876	Human mRNA for KIAA0154 gene, partial cds	0.61
549	AE001326	Chlamydia trachomatis section 53 of 87 of the complete genome	2.3
550	Z58704	H.sapiens CpG island DNA genomic Mse1 fragment, clone 49b2, reverse read cpg49b2.rt1b	2.3
551	X78576	R.oryzae fumR gene	0.22
552	AB014740.1	Oryza sativa gypsy-type retrotransposon RIRE8A DNA, internal region, complete sequence	0.64
553	X78562	O.limosus hypoglycemic hormone mRNA CHAA,2409bp	0.21
554	X99719	S.enterica hsdM, hsdS & hsdR genes	1.9
555	U58513	Mus musculus Rho-associated, coiled-coil forming protein kinase p160 ROCK-2 mRNA, complete cds	1.9
556	Z83002	B.pagrosomi partial 28S rRNA gene	0.66
557	AL080223.1	Homo sapiens mRNA; cDNA DKFZp566H2446	e-150
558	AL080066.1	Homo sapiens mRNA; cDNA DKFZp564J142 (from clone DKFZp564J142)	0.00003
559	AF020424	Nicotiana tabacum glutamate decarboxylase isozyme 2 (NtGAD2) mRNA. complete cds	1.8
560	U32768	Haemophilus influenzae Rd section 83 of 163 of the complete genome	0.21
561	M10316	Plasmid pJD1 from Neisseria gonorrheae DNA, complete genome.	2
562	AB004272.1	Bos taurus mRNA for placenta growth factor precursor, complete cds	1.9
563	X05427	Drosophila ultrabithorax (Ubx) gene promoter region	1.9
564	M18729	S.pneumoniae mismatch repair protein (hexA) gene, complete cds.	0.21
565	M87060	Rattus rattus cardiac AE3 gene, exons 1-23.	0.086
566	M36662	Chicken alpha-1 collagen type III gene, 3' end.	0.083
567	AF135450.1	Sus scrofa SMCY (SMCY) gene, partial cds	0.081
568	Z34293	A.thaliana (CDNA4) myosin heavy chain mRNA	2.2
569	U83880	Rattus norvegicus glycerol-3-phosphate dehydrate dehydrogenase (mtGPDH) mRNA, 3'UTR	1E-59

Table 2A: Nearest Neighbor (BlastN vs. Genbank)

Table 2A: Nearest Neighbor (BlastN vs. Genbank)

SEQ ID	ACC'N	DESCRIP.	P VALUE
570	AF133913.1	Mus musculus ARL-6 interacting protein-6	4E-79
571	AF077543.1	Caenorhabditis elegans cosmid H07I21	1.9
572	X77829	A.niger (N400) gsdA gene	0.07
573	X74765	H.sapiens CSK gene for protein tyrosine kinase	0.069
574	X63510	M.musculus CAML1 gene (exons 5-9)	0.62
575	U27319	Rattus norvegicus type I hexokinase (HKI) gene, promoter region and partial cds	0.61
576	L23863	Rat Skn1i mRNA.	0.068
577	Z26284.1	H.sapiens isoform 1 gene for L-type calcium channel, exon 47 and 48	0.069
578	S66283	Spnb-1=beta-spectrin [mice, reticulocyte, mRNA, 8126 nt]	0.069
579	M36305	Galago crassicaudatus gamma globin gene, complete cds.	0.07
580	AB018337.1	Homo sapiens mRNA for KIAA0794 protein, partial cds	0.22
581	Z60182	H.sapiens CpG island DNA genomic Mse1 fragment, clone 193a12, reverse read cpg193a12.rt1a	0.21
582	AF121948.1	Homo sapiens telomerase reverse transcriptase	0.003
584	Y10019	R.norvegicus mRNA for DRM protein	0.21
585	AF145653.1	Drosophila melanogaster clone GH08860 BcDNA.GH08860 (BcDNA.GH08860) mRNA, complete cds	0.64
586	M88321	Gossypium hirsutum group 4 late embryogenesis-abundant protein (Lea14-A) gene, complete cds.	0.024
587	S82821	GSTA5=glutathione S-transferase Yc2 subunit {5' region, intron 1} [rats, Morris hepatoma cell line, Genomic, 2212 nt, segment 1 of 3]	1.9
588	AF039857	5 Homo sapiens retinal pigment epithelium-specific protein (RPE65) gene, exon 3	0.023
589	X05034	Rat C2A gene for prostatic binding protein (PBP)	0.2
590	U13177	Rattus norvegicus clone ubc4a ubiquitin conjugating enzyme (E217kB) mRNA, complete cds.	0.071
591	AF081530	Homo sapiens neuralized binding protein mRNA, complete cds	e-143
592	Z73328	H.sapiens DNA (chromosome 13q, clone 117A11, 856 bp)	0.023
593	D49733	Mouse lamin A/C and C2 genes, exon 6, 7, 8, 9, 10, 11 and 12, complete cds	2.3
594	L04603	Trypanosoma cruzi R27-2 protein gene, complete cds.	2.3
595	AF045742	Xenopus laevis Smad7 mRNA, complete cds	0.72
596	D83993	Fission yeast DNA for chromosome II cosmid 1228 sequence	0.7

Tabl 2A: Nearest Neighbor (BlastN vs. Genbank)

SEQ ID	ACC'N	DESCRIP.	P VALUE
597	L77036	Homo sapiens (subclone 5_d9 from P1 H19) DNA sequence.	0.008
598	AE001414	Plasmodium falciparum chromosome 2, section 51 of 73 of the complete sequence	0.008
599	AF001893	Human MEN1 region clone epsilon/beta mRNA, 3' fragment	0.2
601	Z69652	Human DNA sequence from cosmid L75B9, Huntington's Disease Region, chromosome 4p16.3	0.023
602	Z16517	H. sapiens (D13S155) DNA segment containing	0.041
603	X14448	Human GLA gene for alpha-D-galactosidase A (EC 3.2.1.22)	0.71
604	AF055481	Homo sapiens normal epithelial cell-specific 1	0.029
605	AJ002550	Homo sapiens MMP-1 gene, promoter region	6E-11
606	AF037454	Mus musculus ubiquitin protein ligase (Itch) mRNA, complete cds	0.0009
607	U96108	Staphylococcus carnosus (3R)-hydroxymyristoyl acyl carrier protein dehydrase homolog (fabZ) gene, partial cds, YwpF homolog, single-strand binding protein homolog Sce...	0.8
608	X53334	Chicken mRNA for annexin II	0.029
609	AF045742	Xenopus laevis Smad7 mRNA, complete cds	0.028
610	AF045742	Xenopus laevis Smad7 mRNA, complete cds	0.085
611	AF045742	Xenopus laevis Smad7 mRNA, complete cds	0.089
612	D16474	Human mRNA, Xq terminal portion	0.00003
613	NM_004955.1	Homo sapiens equilibrative nucleoside transporter 1 (ENT1) mRNA >gi|1845344|gb|U81375|HSU81375 Human placental equilibrative nucleoside transporter 1	0.00003
614	AB019944.1	Arabidopsis thaliana gene for sigma factor SigC, complete cds	1.9
615	AB012181	Homo sapiens DNA, anonymous heat-stable fragment RP8-6A	1E-34
616	AF106929.1	Medicago truncatula putative cell wall protein (AM1) mRNA, complete cds	0.2
617	L09105	Homo sapiens glucos phosphate isomerase mRNA, intron with a conserved tandem repeat.	0.00003
618	X06292	Human c-fes/fps proto-oncogene	0.028
619	NM_003951.1	Homo sapiens solute carrier family 25 member 14 (SLC25A14), nuclear gene encoding mitochondrial product, mRNA mitochondrial carrier protein-1 (BMCP1) mRNA, nuclear gene encoding mitochondrial protein, complete cds	e-173
620	AL050089.1	Homo sapiens mRNA; cDNA DKFZp586E0518 (from clone DKFZp586E0518)	e-166
621	AF045742	Xenopus laevis Smad7 mRNA, complete cds	0.25
622	AF045742	Xenopus laevis Smad7 mRNA, complete cds	0.26
623	M17374	X.laevis beta-globin mRNA, 5' UTR.	0.009

Table 2A: Nearest Neighbor (BlastN vs. Genbank)

SEQ ID	ACC'N	DESCRIP.	P VALUE
624	D32056	Human gene for 2-oxoglutarate dehydrogenase, exon 1 sequence	0.003
625	M17374	X.laevis beta-globin mRNA, 5' UTR.	0.027
626	M17374	X.laevis beta-globin mRNA, 5' UTR.	0.028
627	M17374	X.laevis beta-globin mRNA, 5' UTR.	0.028
628	M17374	X.laevis beta-globin mRNA, 5' UTR.	0.029
629	M17374	X.laevis beta-globin mRNA, 5' UTR.	0.028
630	M17374	X.laevis beta-globin mRNA, 5' UTR.	0.028
631	M17374	X.laevis beta-globin mRNA, 5' UTR.	0.029
632	Z69364	Human DNA sequence from cosmid L96F8, Huntington's Disease Region, chromosome 4p16.3 contains EST and cDNA >gi|1182000|emb|Z69365|HSL96F8A Human DNA sequence from cosmid L96F8, Huntington's Disease Region, chromosome 4p16.3 contains EST and cDNA	8E-13
633	NM_004435 .1	Homo sapiens endonuclease G (ENDOG), nuclear gene encoding mitochondrial protein, mRNA G (ENDOG) mRNA	9E-13
634	U46837	Human RNA polymerase II holoenzyme component SRB7 (SRB7) mRNA, complete cds.	0.21
635	M13973	Bovine protein kinase C mRNA, complete cds.	3E-14
636	AB012917	Homo sapiens mRNA for serine protease (TLSP), complete cds	e-143
637	M57750	S.pombe cut2+ gene, complete cds.	0.22
638	V00584	Human gene hY1 encoding a cytoplasmic Ro RNA	7E-21
639	L81854	Homo sapiens (subclone 2_b8 from P1 H48) DNA sequence	2E-11
640	X73897	H.sapiens zinc finger domain ZF21.3 DNA	2E-31
641	L10239	Insertion sequence IS1141 (from Mycobacterium intracellulare strain Va14), transposase gene, complete cds, clone pVT365.	1.8
642	AF097025	Homo sapiens cysteine desulfurase (nifS) mRNA, complete cds	e-170
644	AF008219	Borrelia afzelii R-IP3 chromosome right end, arcA and arcB genes, complete cds	0.092
645	NM_003496 .1	Homo sapiens Transformation/transcription domain-associated protein (TRRAP) mRNA, and translated products >gi|4165076|gb|AF076974|AF076974 Homo sapiens TRRAP protein (TRRAP) mRNA, complete cds	6E-43
646	AF000305.1	Brassica napus steroid sulfotransferase 1 gene, complete cds	0.76
647	AF016031	Homo sapiens thyroid hormone receptor activator molecule (TRAM-1) mRNA, complete cds	8E-34
648	M97168	Homo sapiens X (inactive)-specific transcript	0.22

Table 2A: Nearest Neighbor (BlastN vs. Genbank)

SEQ ID	ACC'N	DESCRIP.	P VALUE
649	NM_003011.1	Homo sapiens SET translocation (myeloid leukemia-associated) (SET) mRNA cds.	9E-36
650	NM_004669.1	Homo sapiens chloride intracellular channel 3 (CLIC3) mRNA >gi|4323621|gb|AF102166|AF102166 Homo sapiens intracellular chloride channel CLIC3 (CLIC3) mRNA, complete cds	4E-50
651	AJ010479.1	Homo sapiens mRNA for kinesin-like protein 2	e-171
652	U29932	Human AMP deaminase (AMPD3) gene, intron 2, partial sequence.	1E-37
653	AF028233	Homo sapiens distal-less homeobox protein (DLX3) gene, complete cds	3E-47
654	AF151978.1	Homo sapiens amino acid transporter B0+	e-165
655	Z64037	H.sapiens CpG island DNA genomic Mse1 fragment, clone 95g8, forward read cpg95g8.ft1a	2E-50
656	M32140	T.brucei heat shock protein (Hsp70) gene, upstream region.	1.9
657	NM_003164.1	Homo sapiens syntaxin 5A (STX5A) mRNA mRNA, complete cds	7E-54
658	NM_001538.1	Homo sapiens heat shock transcription factor 4 (HSF4) mRNA >gi|1813425|dbj|D87673|D87673 Homo sapiens mRNA for heat shock transcription factor 4, complete cds	1E-57
659	NM_001538.1	Homo sapiens heat shock transcription factor 4 (HSF4) mRNA >gi|1813425|dbj|D87673|D87673 Homo sapiens mRNA for heat shock transcription factor 4, complete cds	1E-57
660	L76569	Homo sapiens (clones cYG3, B5P6C4) fragile X E mental retardation syndrome protein (FMR2) mRNA, complete cds.	0.21
661	X55110	Human mRNA for neurite outgrowth-promoting protein	2E-59
662	L20468	Rattus norvegicus cerebroglycan mRNA, complete cds.	3E-86
663	NM_005324.1	Homo sapiens H3 histone, family 3B (H3.3B)	e-127
664	NM_001283.1	Homo sapiens clathrin-associated/assembly/adaptor protein, small 1 Homo sapiens mRNA for sigma1A subunit of AP-1 clathrin adaptor complex, complete cds	e-171
665	AF007867	Lymantria dispar pheromone binding protein 1	1.8
669	U93704	Riftia pachyptila endosymbiont bacterioferritin comigratory protein homolog (bcp), sensor protein RssA complete cds	1.9
670	AB002315	Human mRNA for KIAA0317 gene, complete cds	1.8
673	X96585	M.musculus mRNA for NOV protein	1.8
674	D84103	Homo sapiens mRNA for mitochondrial DNA polymerase gamma, complete cds	1.7

Table 2A: Nearest Neighbor (BlastN vs. Genbank)

SEQ ID	ACC'N	DESCRIP.	P VALUE
675	AB000834.2	Nicotiana tabacum gene for thaumatin-like protein SE39b, complete cds	1.8
676	AF129853.1	Gymnascella hyalinospora strain VAMH 7366 18S ribosomal RNA gene, partial sequence; internal transcribed spacer 1, 5.8S ribosomal RNA gene and internal transcribed spacer 2, complete sequence; and 28S ribosomal RNA gen...	0.2
678	AB029007.1	Homo sapiens mRNA for KIAA1084 protein, complete cds	e-168
679	AB007957	Homo sapiens mRNA, chromosome 1 specific transcript KIAA0488	e-145
680	AL080168.1	Homo sapiens mRNA; cDNA DKFZp434C151 (from clone DKFZp434C151)	0
681	D32166.1	Poplar mRNA for cellulase (endo-1, 4-beta-glucanase), complete cds	1.6
683	M17374	X.laevis beta-globin mRNA, 5' UTR.	0.03
684	U32792	Haemophilus influenzae Rd section 107 of 163 of the complete genome	2.1
685	X74969	R.norvegicus gene for prostatic acid phosphatase	0.02
686	U70998	Phanerochaete chrysosporium manganese peroxidase isozyme 3 (mnp3) gene, complete cds	0.73
687	NM_005969 .1	Homo sapiens nucleosome assembly protein 1-like 4 (NAP1L4) mRNA >gi|1679778|gb|U77456|HSU77456 Human nucleosome assembly protein 2 mRNA, complete cds	2.1
688	AJ132369.1	Sorites orbiculus SSU rRNA, isolate 206	0.67
690	U04435	Drosophila melanogaster GLI-Kr zinc finger pair-rule protein mRNA, complete cds. embryo, mRNA, 2959 nt]	0.67
691	X69511	G.gallus Acra-2 gene alpha-2 subunit	0.67
692	AF140762.1	Homo sapiens neuronal acetylcholine receptor beta-3 subunit precursor (CHRNB3) gene, exon 3	2
695	Z74734	C.porcellus mRNA for guanylyl cyclase C	1.9
696	L76081	Clostridium difficile ADP-ribosyltransferase enzymatic and binding component (cdtA and cdtB) genes, complete cds's	0.63
697	X82657	H.sapiens IRLB gene (exon 4)	0.66
698	AB020649.1	Homo sapiens mRNA for KIAA0842 protein, partial cds	e-143
699	NM_005499 .1	Homo sapiens SUMO-1 activating enzyme subunit 2 (UBA2) mRNA >gi|4096671|gb|U35832.1|HSU35832 Human anthracycline-associated resistance ARX mRNA, complete cds	1E-47

Table 2A: Nearest Neighbor (BlastN vs. Genbank)

SEQ ID	ACC'N	DESCRIP.	P VALUE
700	AB018255.1	Homo sapiens mRNA for KIAA0712 protein, complete cds	0.008
701	AL035496.6	Human DNA sequence from clone 437O22 on chromosome 22q12.2-13.1. Contains the 5' part of a novel VHS domain containing protein similar to predicted worm and human proteins. Contains ESTs, GSSs and a putative CpG islan...	0.0000001
702	AB020664.1	Homo sapiens mRNA for KIAA0857 protein, partial cds	e-162
703	AL050269.1	Homo sapiens mRNA; cDNA DKFZp564C103 (from clone DKFZp564C103)	e-173
704	M62324	Human modulator recognition factor I (MRF-1) mRNA, 3' end.	1.8
705	Z69363	Human DNA sequence from cosmid L60G9B, Huntington's Disease Region, chromosome 4p16.3 contains ESTs	0.61
707	AF068890	Bos taurus PIM1 protein (PIM1) gene, exon 5 and partial cds	0.64
708	NM_000211.1	Homo sapiens integrin beta chain, beta 2 leukocyte adhesion protein (LFA-1/Mac-1/p150,95 family) beta subunit mRNA.	0.65
709	U38550	Arabidopsis thaliana pre zeta-carotene desaturase precursor (zds) mRNA, complete cds.	1.9
710	AF147787.1	Homo sapiens hepatocyte nuclear factor-3 beta gene, complete cds	0.22
711	AF140549.1	Enterococcus faecium unknown gene	0.19
712	AF031630	Danio rerio homeobox protein LIM-3 (lim3) gene, exons 2 and 3	0.19
713	AF007883	Homo sapiens MHC class II HLA-DRB1 (HLA-DRB1*10) intron 1 sequence	0.021
714	X71844	C.perfringens uapC, cpe, and nadC genes	0.63
715	M87359	Yeast Eco RI fragment.	0.56
716	AF088887	Oryctolagus cuniculus interleukin-10 precursor, mRNA, complete cds	0.62
717	AF151897.1	Homo sapiens CGI-139 protein mRNA, complete cds	3E-38
718	U65948	Zea mays starch branching enzyme IIa (Sbe2a) mRNA, partial cds	0.61
719	AF086443	Homo sapiens full length insert cDNA clone ZD81C11	1E-68
720	AJ011767	Sus scrofa mRNA for neuron-derived orphan receptor-1 alfa transcription factor	0.18
721	U78547	Chlamydomonas reinhardtii PF20 mRNA, complete cds	0.00009
722	U25686	Drosophila melanogaster ecdysone-regulated (E93) mRNA, complete cds.	0.54

Table 2A: Nearest Neighbor (BlastN vs. Genbank)

SEQ ID	ACC'N	DESCRIP.	P VALUE
723	AB029017.1	Homo sapiens mRNA for KIAA1094 protein, complete cds	e-102
724	U67533	Methanococcus jannaschii section 75 of 150 of the complete genome	0.4
725	L81892	Homo sapiens (subclone 2_h6 from P1 H62) DNA sequence	2.2
726	U83650	Mus caroli Sp100 gene, exon 13	2.1
727	X14710	B.taurus beta-lactoglobulin gene	0.23
728	AF034920	Homo sapiens tubby like protein 1 (TULP1) gene, exons 9-11	2
729	D83999	Mus musculus mRNA for the third largest RNA polymerase II subunit, complete cds	0.22
730	U18109	Macropus rufogriseus MHC class II DR alpha protein precursor (Maru-DRA) mRNA. complete cds.	0.66
731	Y18476	Trichophyton rubrum mitochondrial cytb gene and NADH1 to NADH5 genes	0.67
732	Y18476	Trichophyton rubrum mitochondrial cytb gene and NADH1 to NADH5 genes	0.65
733	AF148461.1	Homo sapiens CLNS1A gene, intron 1 sequence	e-160
734	L80007	Equine adenovirus 2 385/75 hexon and endopeptidase genes, complete cds	1.9
735	X76128	T.thermophila MSE 2.9 (left) gene germline limited sequence	0.22
737	AF141658.1	Ictalurus punctatus EB1 mRNA, complete cds	0.62
738	U67576	Methanococcus jannaschii section 118 of 150 of the complete genome	0.21
739	AL050269.1	Homo sapiens mRNA; cDNA DKFZp564C103 (from clone DKFZp564C103)	e-159
740	AF065389	Homo sapiens tetraspan NET-4 mRNA, complete cds	0.21
741	AB007455.1	Homo sapiens mRNA for P53TG1-A, complete cds	0.22
742	U67399	Mus musculus K-cadherin/cadherin-6 mRNA, partial cds	2
743	AB018315.1	Homo sapiens mRNA for KIAA0772 protein, complete cds	9E-78
745	AL080164.1	Homo sapiens mRNA; cDNA DKFZp564C1940 (from clone DKFZp564C1940)	5E-20
746	X00007	Bacillus subtilis 5' end of ribosomal RNA operon rrnB	0.22
747	AF058234.1	Scutellastra longicosta 16S ribosomal RNA gene, mitochondrial gene for mitochondrial RNA, partial sequence	0.022
748	M99362	Rhesus macaque polyoma virus large T antigen gene, 3' end.	0.2
749	U80458	Human microtubule associated protein 1A mRNA, partial cds	0.067

Table 2A: Nearest Neighbor (BlastN vs. Genbank)

SEQ ID	ACC'N	DESCRIP.	P VALUE
750	AB019533.1	Oryza sativa mRNA for Nad-dependent formate dehydrogenase, complete cds	0.22
751	Z69723	Human DNA sequence from cosmid U238E5, between markers DXS6791 and DXS8038 on chromosome X	0.2
752	AF056936	Plasmodium falciparum mature parasite-infected erythrocyte surface antigen gene, complete cds	1.8
753	AJ010396.1	Homo sapiens DKC1 gene, exons 12 to 15	0.63
754	U19253	Xenopus laevis/gilli complement component C3 mRNA, partial cds.	1.9
755	M82872	S.cerevisiae protein-tyrosine phosphatase complete cds.	0.21
756	AF045188	Salmo salar ribosomal protein L18a mRNA, complete cds	0.21
757	AJ001118	Mus musculus mRNA for monoglyceride lipase	0.62
758	Y10377	C.albicans TOP2 gene	1.8
759	AB014573	Homo sapiens mRNA for KIAA0673 protein, partial cds	e-168
760	L24113	Saccharomyces cerevisiae Ca2+ regulatory protein	0.19
761	M96739	Human NSCL-1 mRNA sequence.	1.7
762	AF035006	Human respiratory syncytial virus, recombinant mutant rA2cp, complete genome	0.56
763	AF065389	Homo sapiens tetraspan NET-4 mRNA, complete cds	0.19
764	NM_006354 .1	Homo sapiens transcriptional adaptor 2 complex) (TADA3L) mRNA >gi|3335554|gb|AF069733|AF069733 Homo sapiens ADA3-like protein mRNA, complete cds	e-154
765	M73752	Gossypium hirsutum Lea4-A gene, complete CDS.	0.06
766	X79192	F.brownii pdk gene	0.54
767	X14891	H.sapiens gene for transforming growth factor-beta 3 (TGF-beta 3) exon 7	0.076
768	Z78708	H.sapiens flow-sorted chromosome 6 HindIII fragment, SC6pA14H12	0.076
769	AF068902	Streptococcus pneumoniae D-glutamic acid adding enzyme MurD (murD), undecaprenyl-PP-MurNAc-pentapeptide-UDPGlcNAc GlcNAc transferase (murG), cell division protein DivIB (divIB), orotidine-5'-decarboxylase PyrF (pyrF), an...	0.23
770	U62588	Cricetulus griseus beta-1,6-N-acetylglucosaminyltransferase Lec4 cell line insertion mutant mRNA, complete cds	2
771	AJ236354.1	Timarcha coarcticollis mitochondrial partial tRNA-Leu gene and COII gene, isolate Los Barrios, Cadiz, Spain	0.026
772	U67604	Methanococcus jannaschii section 146 of 150 of the complete genome	0.22

Table 2A: Nearest Neighbor (BlastN vs. Genbank)

SEQ ID	ACC'N	DESCRIP.	P VALUE
773	AB018257.1	Homo sapiens mRNA for KIAA0714 protein, partial cds	e-178
774	AF169299.1	Equus caballus microsatellite HTG15 sequence	0.21
775	U96289	Homo sapiens Ig heavy chain VH3 region (VH3-30.3) mRNA, partial cds	0.64
776	Y07521	Mouse neuroblastoma-Rat glioma hybrid cell line mRNA for a potassium channel protein NGK2	0.076
777	NM_003966.1	Homo sapiens sema domain, seven thrombospondin repeats (type 1 and type 1-like), transmembrane domain semaphorin F homolog mRNA, complete cds	0.071
778	U66524	Dictyostelium discoideum ORFveg158 mRNA, partial cds	0.071
779	M81388	Chilo iridescent virus DNA-directed RNA polymerase and helicase genes, complete cds's. DNA-depenent RNA polymerase largest subunit homolog iridescent virus type 6, Genomic, 3 genes, 7990 nt]	0.073
780	AF132944.1	Homo sapiens CGI-10 protein mRNA, complete cds	e-170
781	AJ001700	Mus musculus mRNA for neuroserpin	0.069
782	U50421	Human Down Syndrome region of chromosome 21, clone A4B8-1D8.	0.61
783	X74159	K.lactis MBP1 gene	1.9
784	D87682	Human mRNA for KIAA0241 gene, partial cds	0.071
785	AB015633.1	Homo sapiens mRNA for type II membrane protein, complete cds, clone:HP10481	7E-23
786	AF022414	Trichomonas vaginalis glyceraldehyde-3-phosphate dehydrogenase (gap2) gene, partial cds	0.2
787	M36996	Mouse L1M1 and L1M2 sequence DNA.	0.21
788	M95171	Aedes aegypti LINE retrotransposon Juan-A including DNA binding protein and reverse transcriptase-like protein mRNA, complete coding regions.	0.069
789	U47661	Lupinus luteus proline-rich protein PRP2 precursor (LlPRP2) gene, complete cds	0.59
790	X55581	H.sapiens immunoglobulin heavy chain gene, diversity region	0.59
791	AF104500	Farfantepenaeus duorarum isolate FD6 mitochondrial control region	0.065
792	AF094519	Mus musculus diaphanous-related formin (Dia2) mRNA, complete cds	3E-79
793	X95267	G.gallus mRNA for ryanodine receptor type 3	0.63
794	K01872	Bacteriophage Cp-1 (Streptococcus pneumoniae), 3' inverted terminal repeat.	0.063

Table 2A: Nearest Neighbor (BlastN vs. Genbank)

SEQ ID	ACC'N	DESCRIP.	P VALUE
795	AF094573	Rice tungro bacilliform virus isolate T10 P194 gene, partial cds	1.7
796	X15061	Glycine max lbc3 gene for leghemoglobin C3	0.062
797	Y17267	Mus musculus mRNA for ubiquitin conjugating enzyme	3E-89
798	AF149109.1	Rickettsia australis strain PHS outer membrane protein B (ompB) gene, partial cds	0.061
799	AJ004870	Thermoanaerobacterium thermosaccharolyticum ptaA and ackA genes, orf1, orf2, orf3, orf4	0.19
800	S77555	corticotropin receptor/ACTH receptor {5' region}	0.19
801	AJ130796	Mus musculus APC2 gene, exon 14	1.6
802	AE001229	Treponema pallidum section 45 of 87 of the complete genome	1.7
803	X16137	Suillus sinuspaulianus mitochondrial large subunit ribosomal RNA gene, part	0.69
804	AF048839.1	Arabidopsis thaliana Atmyb103 (MYB103) gene, complete cds	0.68
805	Z86109	S.carlsbergensis 12 kb region of chromosome III	0.025
806	X67053	S.tuberosum ppc mRNA for phosphoenolpyruvate carboxylase	0.67
807	X13423	Phaseolus vulgaris tRNA-Pro(UGG3) gene	2
808	Z17118	H. sapiens (D9S179) DNA segment containing (CA) repeat; clone AFM248wf1; single read	0.65
809	Z23386	H. sapiens (D5S467) DNA segment containing	0.072
810	M12729	Mouse T-cell surface antigen T3 delta-chain gene, exons 2,3,4 and 5, from B8C3 (anti-porcine insulin T-T) hybridoma, clone pMT-2.	0.23
811	AF012551	Plasmodium falciparum ornithine decarboxylase	0.21
812	L08265	Human skeletal muscle chloride channel (HUMCLC) gene, exon 7.	0.075
813	X00616	Tobacco chloroplast gene P32 for thylakoid membrane protein	0.07
814	U79731	Plasmodium berghei extrachromosomal plastid PB-1, ORF470 gene, partial cds, tRNA-Thr, large subunit ribosomal RNA, tRNA-Met, tRNA-Arg, tRNA-Val, tRNA-Arg, tRNA-Leu, tRNA Asn, tRNA-Ala, and small subunit ribosomal RNA genes...	0.023
815	S82293	II beta-globin=II beta-globin {5' region} [rats, mRNA Partial, 1428 nt]	2
816	AJ007398.1	Homo sapiens mRNA for PBK1 protein	0
817	AL109849.1	Streptomyces coelicolor cosmid 3A3	0.023

Table 2A: Nearest Neighbor (BlastN vs. Genbank)			
SEQ ID	ACC'N	DESCRIP.	P VALUE
819	U84223	Canine herpesvirus cIR6, cUS2, cUS3, cUS4, cUS6, cUS7, cUS8 and cUS9 genes, complete cds	0.067
820	AF036233	Homo sapiens cdc25B phosphatase (CDC25B) gene, alternatively spliced, partial cds	0.024
821	AB016195.1	Homo sapiens ELK1 pseudogene (ELK2) and immunoglobulin heavy chain gamma pseudogene (IGHGP)	1E-16
822	L10820	Human N-formyl peptide receptor (FPR1) gene, complete cds and Alu repeats.	0.023
823	AF039423	Cebus olivaceus blue opsin gene, exons 2 and 3	0.58
824	Z97214	Xenopus laevis mRNA for MILZ protein	1.8
825	Y17038	Mus musculus bassoon gene, exon 6 to 11	1.7
826	X92518	H.sapiens mRNA for HMGI-C protein	0.065
827	X06414	Mycoplasma capricolum ribosomal protein gene cluster	0.62
828	AJ002019	Saccharomyces uvarum mitochondrial coxII gene, partial	0.061
829	D84395	Bombyx mori DNA for cecropin A, complete cds	0.18
830	D86077	Homo sapiens DNA for cyclin G, partial cds	0.18
831	AF144573.1	Mesocricetus auratus Mx-interacting protein kinase PKM mRNA, complete cds	2E-18
832	AF123653.1	Homo sapiens FEZ1 (FEZ1) gene, complete cds	0.009
833	X71018	N.tabacum NPG-G27Y mRNA for polygalacturonase	0.025
834	D63884	Anthocidaris crassispina mRNA for intermediate chain 1, complete cds	0.072
835	AE001393	Plasmodium falciparum chromosome 2, section 30 of 73 of the complete sequence	0.008
836	AE001395	Plasmodium falciparum chromosome 2, section 32 of 73 of the complete sequence	0.0003
837	AF007164	Drosophila melanogaster mRNA sequence	0.21
838	AB005744	Perilla frutescens DNA for 1-limonene synthase, complete cds	0.21
839	AF067143	Homo sapiens myosin heavy chain (MYH8) gene, partial cds	0.21
840	X04130	Watermelon mitochondrial URF1 gene	0.008
841	X95439	S.xylosus aroA, ccpA, acuC and acuA genes	0.008
842	AB007404.1	Oryza sativa gene for alanine aminotransferase, complete cds	0.063
843	X59823	Human chromosome 8 flanking hypervariable simple repeat DNA (clone HZREP32)	0.21
844	AF122981.1	Arabidopsis lyrata cultivar NC4 RPM1 gene, 5' sequence	0.002
845	AF016667.2	Caenorhabditis elegans cosmid T20H12	4.9

Table 2A: Nearest Neighbor (BlastN vs. Genbank)

SEQ ID	ACC'N	DESCRIP.	P VALUE
846	V00184	Slime mold (D. discoideum) gene for actin 2 sub1 actin 2 (sub 1) gene 5' end.	0.061
847	AB020656.1	Homo sapiens mRNA for KIAA0849 protein, partial cds	0.23
848	X82107	H.sapiens gene for tryptophanyl-tRNA synthetase	1.9
849	M81385	Mouse liver receptor homologous protein (LRH-1) mRNA, complete cds.	0.025
850	NM_006401 .1	Homo sapiens acidic protein rich in leucines silver-stainable protein SSP29 mRNA, complete cds	0.008
851	AL010149	Plasmodium falciparum DNA *** SEQUENCING IN PROGRESS *** from contig 3-82, complete sequence	0.21
852	AF151826.1	Homo sapiens CGI-68 protein mRNA, complete cds	e-153
853	AE001402	Plasmodium falciparum chromosome 2, section 39 of 73 of the complete sequence	0.021
854	U96976	Homo sapiens MET proto-oncogene, intron 6, 3' end	0.068
855	D85545	Yeast chk1 and ucbP4 DNA, partial and complete cds	1.7
856	AF001175	Homo sapiens ribonuclease P protein subunit p14 (Rpp14) mRNA, complete cds	7E-45
857	U14724.1	Anticarsia gemmatalis nuclear polyhedrosis virus genomic repeat region	0.0008
858	AL008641	Human DNA sequence from cosmid N100B10 on chromosome 22q12.3	0.06
859	Y00326	Human sis proto-oncogene upstream region	0.19
860	AF003483	Habrabracon hebetor 16S ribosomal RNA gene, partial sequence	0.0007
861	AL049265.1	Homo sapiens mRNA; cDNA DKFZp564F053 (from clone DKFZp564F053)	e-122
862	Z69351	B.vulgaris repetitive DNA (clone pDRV1)	0.0009
863	L28998	Theileria parva 28S ribosomal RNA (28S rRNA) gene.	0.024
864	X06000	G.gallus carbonic anhydrase II gene exons 1-2	0.067
865	AB000565	Homo sapiens DNA for repeat sequence Alu	1E-26
866	AE000761	Aquifex aeolicus section 93 of 109 of the complete genome	0.22
867	AF017145	Homo sapiens multidrug resistance protein	0.0008
868	J05451	Human gastric (H+ + K+)-ATPase gene, complete cds.	0.003
869	AB018258.1	Homo sapiens mRNA for KIAA0715 protein, partial cds	0.007
870	D78572	Mus musculus mRNA for membrane glycoprotein, complete cds >gi|3251779|dbj|E12950|E12950 cDNA GA3-43 encoding novel polypeptide which appear when differentiate from embryo-tumor cell P19 to nerve cell	0.0001

Table 2A: Nearest Neighbor (BlastN vs. Genbank)

SEQ ID	ACC'N	DESCRIP.	P VALUE
871	AC001017	Homo sapiens (subclone 2_g8 from P1 H43) DNA sequence	0.003
872	AB018284.1	Homo sapiens mRNA for KIAA0741 protein, complete cds	0.0009
873	Z54147	Human DNA sequence from cosmid L129H7, Huntington's Disease Region, chromosome 4p16.3 contains CpG island	0.002
874	Z54147	Human DNA sequence from cosmid L129H7, Huntington's Disease Region, chromosome 4p16.3 contains CpG island	0.002
875	NM_006392.1	Homo sapiens nucleolar protein (KKE/D repeat) mRNA for nucleolar protein hNop56	e-157
876	L43392	Homo sapiens (subclone 6_a8 from P1 H16) DNA sequence.	0.00001
877	X75670	O.sativa mRNA for cytochrome b5	0.00001
878	Z23808	H. sapiens (DXS1199) DNA segment containing	0.000009
879	L48473	Homo sapiens (subclone 7_e11 from P1 H16) DNA sequence.	0.003
880	AF074908.1	Homo sapiens neuronal and epithelial glutamate transporter (SLC1A1) gene, exon 7	5E-11
881	X02536	Human preproenkephalin B gene 5' region and exon 1 >gi|182100|lcl|X00174 Human enkephalin B (enkB) gene, 5' flank and exon 1.	0.000001
882	AL109681.1	Homo sapiens mRNA full length insert cDNA clone EUROIMAGE 112333	0.000003
883	M88599	Entamoeba histolytica P-glycoprotein-1 (pgp1) gene, complete cds.	0.07
884	M38188	Human unknown protein from clone pHGR74 mRNA, complete cds.	6E-10
885	U50531	Human BRCA2 region, mRNA sequence CG030	0.000001
886	Z64533	H.sapiens CpG island DNA genomic Mse1 fragment, clone 134d9, forward read cpg134d9.ft1a	0.0000004
887	NM_004422.1	Homo sapiens dishevelled 2 (homologous to Drosophila dsh) (DVL2) mRNA dishevelled 2 (DVL2) mRNA, complete cds	e-116
888	S66168	sterol regulatory element 1 binding protein cells, mRNA Partial, 547 nt, segment 2 of 2] 5527690	0.008
889	L29556	Human (clone hSTX) sialyltransferase mRNA, 3' end.	0.008
890	AF036703	Caenorhabditis elegans cosmid T11F8	0.53
891	Z68281	Human DNA sequence from cosmid L2F10, Huntington's Disease Region, chromosome 4p16.3 contains Human G protein coupled receptor kinase-like, and an RFLP	0.000004
892	AL035046.5	Human DNA sequence from clone 321I20 on chromosome 1q32.1-41 Contains GSSs, complete sequence	0.0001
893	Y15083	Homo sapiens p14.5-like gene and Alu repeat	3E-13

Tabl 2A: Nearest Neighbor (BlastN vs. Genbank)

SEQ ID	ACC'N	DESCRIP.	P VALUE
894	AF044123	Homo sapiens clone SUPTH48 sequence flanking the HIV-1 provirus integration site	0.19
895	J00139	Human dihydrofolate reductase gene, exon 6 and 3' flank.	7E-44
896	Y16790	Homo sapiens hHa4 gene, complete CDS	3E-14
897	U50105	Human ankyrin (ANK1) gene, exon 15	0.00000004
898	AB000537	Schizosaccharomyces pombe mRNA for snoRNP protein GAR 1, complete cds	0.00000005
899	D79990	Human mRNA for KIAA0168 gene, complete cds	0.000001
900	AC002183	Homo sapiens (subclone 2_h8 from BAC H111) DNA sequence	0.00000004
901	AF045742	Xenopus laevis Smad7 mRNA, complete cds	0.11
902	AF072468	Homo sapiens (JH8) mRNA, partial cds	2E-19
903	M11167	Human 28S ribosomal RNA gene.	2E-09
904	D87117	Mus musculus mRNA for SAP102, complete cds	2E-09
905	AB023189.1	Homo sapiens mRNA for KIAA0972 protein, complete cds	0
906	Y07554	Psychrobacter sp. pim gene	0.68
907	AC005190	Homo sapiens PAC clone DJ1152D16 from Xq23, complete sequence [Homo sapiens]	2E-29
908	AF045742	Xenopus laevis Smad7 mRNA, complete cds	0.28
909	AF135183.1	Homo sapiens Recq helicase 5 (RECQ5) gene, alternative splice products, complete cds	e-146
910	U58884	Mus musculus SH3-containing protein SH3P7 mRNA, complete cds. similar to Human Drebrin	2E-13
911	U29113	Human leiomyoma cell line LM-30.1/SV40 ectopic sequence from HMGI-C fusion mRNA, 3' sequence, clone pCH110.	2E-13
912	AC002252	Homo sapiens (subclone 1_g7 from BAC H76) DNA sequence	3E-24
913	U95097	Xenopus laevis mitotic phosphoprotein 43 mRNA, partial cds	0.09
914	NM_003437 .1	Homo sapiens zinc finger protein 136 (clone pHZ-20) (ZNF136) mRNA >gi|487784|gb|U09367|HSU09367 Human zinc finger protein ZNF136	2E-19
915	M17374	X.laevis beta-globin mRNA, 5' UTR.	0.029
916	M12523	Human serum albumin (ALB) gene, complete cds.	1E-15
917	AF043324	Homo sapiens N-myristoyltransferase 1 mRNA, complete cds	2E-51
918	L43631	Homo sapiens scaffold attachment factor B (SAF-B) mRNA, partial cds	0.008
919	L01616	Tribolium castaneum zinc finger protein (Kruppel domain region) gene, partial cds.	4E-18
920	D12688	Mouse P-cadherin gene, exon 1 and 2	2
921	X94770	H.sapiens mRNA for epithelial membrane protein-2	2E-19

Table 2A: Nearest Neighbor (BlastN vs. Genbank)

SEQ ID	ACC'N	DESCRIP.	P VALUE
922	NM_000946.1	Homo sapiens primase, polypeptide 1 (49kD) for DNA primase (subunit p48)	2E-20
923	AE000818	Methanobacterium thermoautotrophicum from bases 264585 to 276866 (section 24 of 148) of the complete genome	1.9
924	AL035418.6	Human DNA sequence from clone 141I3 on chromosome 22q13.1-13.33 Contains an STS and a GSS, complete sequence [Homo sapiens]	0.0009
925	AF086040	Homo sapiens full length insert cDNA clone YX52E07	6E-73
926	AL049310.1	Homo sapiens mRNA; cDNA DKFZp564B206 (from clone DKFZp564B206)	2E-09
927	J01415	Human mitochondrion, complete genome	3E-24
928	AF044122	Homo sapiens clone SUPTH47 sequence flanking the HIV-1 provirus integration site	9E-25
929	Z22640	H.magnipapillata homeobox containing exon	0.076
930	NM_004859.1	Homo sapiens clathrin, heavy polypeptide-like 2 (CLTCL2) mRNA >gi|434760|dbj|D21260|HUMORFEA Human mRNA for KIAA0034 gene, complete cds	4E-27
931	AL049701.1	Human gene from PAC 433G19, chromosome 1	e-162
932	NM_004698.1	Homo sapiens U4/U6-associated RNA splicing factor (HPRP3P) mRNA >gi|2708306|gb|AF016370|AF016370 Homo sapiens U4/U6 small nuclear ribonucleoprotein hPrp3 mRNA, complete cds	4E-28
933	NM_003983.1	Homo sapiens solute carrier family 7 for KIAA0245 gene, complete cds	1E-30
934	NM_003440.1	Homo sapiens zinc finger protein 140 (clone pHZ-39) (ZNF140) mRNA >gi|487786|gb|U09368|HSU09368 Human zinc finger protein ZNF140	1E-30
935	AL050392.1	Homo sapiens mRNA; cDNA DKFZp586I031 (from clone DKFZp586I031)	7E-33
936	NM_002714.1	Homo sapiens protein phosphatase 1, regulatory subunit 10 (PPP1R10) mRNA	e-121
937	M27830	Human 28S ribosomal RNA gene, complete cds.	2E-33
938	M27830	Human 28S ribosomal RNA gene, complete cds.	2E-33
939	Z72521	Human DNA sequence from cosmid N29F4 on chromosome 22q11.2-qter contains STS	0.000001
940	AF056195	Homo sapiens neuroblastoma-amplified protein mRNA, complete cds	2E-72
941	Z35989	S.cerevisiae chromosome II reading frame ORF YBR120c	0.19
942	U76557	Rattus norvegicus O-GlcNAc transferase, p110 subunit (OGT) mRNA, complete cds	9E-36

Table 2A: Nearest Neighbor (BlastN vs. Genbank)

SEQ ID	ACC'N	DESCRIP.	P VALUE
943	Z56141	H.sapiens CpG island DNA genomic Mse1 fragment, clone 8g7, forward read cpg8g7.ft1a	3E-37
944	AF132951.1	Homo sapiens CGI-17 protein mRNA, complete cds	e-165
945	NM_006548 .1	Homo sapiens IGF-II mRNA-binding protein 2 sapiens hepatocellular carcinoma autoantigen (p62) mRNA, complete cds	e-140
946	AF010317	Homo sapiens Pig3 (PIG3) gene, partial cds	3E-38
947	AB023151.1	Homo sapiens mRNA for KIAA0934 protein, partial cds	2E-54
948	Z69649	Human DNA sequence from cosmid L69F7B, Huntington's Disease Region, chromosome 4p16.3 contains Huntington Disease (HD) gene	1E-25
949	AC001159	Homo sapiens (subclone 1_h9 from PAC H92) DNA sequence	4E-17
950	AL080060.1	Homo sapiens mRNA; cDNA DKFZp564H172 (from clone DKFZp564H172)	5E-29
951	L07758	Human IEF SSP 9502 mRNA, complete cds.	4E-48
952	M29037	Human 17 beta-hydroxysteroid dehydrogenase	0.56
953	M36704	C.perfringens perfringolysin O (pfo) gene, complete cds.	0.22
954	U34991	Human endogenous retrovirus clone c18.4, HERV-H/HERV-E hybrid multiply spliced protease/integrase mRNA, complete cds, and envelope protein mRNA, partial cds	2E-61
955	AB002369	Human mRNA for KIAA0371 gene, complete cds	0.0009
956	AF098668	Homo sapiens acyl-protein thioesterase mRNA, complete cds	e-156
957	L12019	Actinidia deliciosa var delicisoa polygalacturonase gene, complete cds	0.19
958	Z12622	A.sativum mRNA encoding precursor alliinase	0.065
959	NM_003429 .1	Homo sapiens zinc finger protein 85 (HPF4, HTF1) (ZNF85) mRNA >gi|1017721|gb|U35376|HSU35376 Human repressor transcriptional factor (ZNF85) mRNA, complete cds.	2E-51
960	AP000249.1	Homo sapiens genomic DNA, chromosome 21q22.1, D21S226-AML region, clone:B762O15, complete sequence	0.0003
961	U16120	Human placental taurine transporter mRNA, complete cds.	2E-52
962	NM_002286 .1	Homo sapiens lymphocyte-activation gene 3 mRNA for CD4-related protein involved in lymphocyte activation	2E-53
963	D63876	Human mRNA for KIAA0154 gene, partial cds	6E-54
964	NM_004128 .1	Homo sapiens general transcription factor IIF, polypeptide 2 (30kD subunit) (GTF2F2) mRNA subunit of transcription initiation factor RAP30/74	7E-55

Table 2A: Nearest Neighbor (BlastN vs. Genbank)

SEQ ID	ACC'N	DESCRIP.	P VALUE
965	AF004691	Scutellospora heterogama 18S ribosomal RNA gene, partial sequence, 5.8S ribosomal RNA gene, complete sequence, and 26S ribosomal RNA gene, partial sequence	0.22
966	U67509	Methanococcus jannaschii section 51 of 150 of the complete genome	0.074
967	AB010059	Homo sapiens RBP56/hTAFII68 gene, exon 3, 4, 5	4E-80
968	AB007891	Homo sapiens KIAA0431 mRNA, partial cds	9E-60
969	NM_005873.1	Homo sapiens G alpha interacting protein (GAIP) mRNA >gi|1107697|emb|X91809|HSPAIP H.sapiens mRNA for GAIP protein	4E-60
970	M76558	Human neuronal DHP-sensitive, voltage-dependent, calcium channel alpha-1D subunit mRNA, complete cds.	0.27
971	NM_003431.1	Homo sapiens zinc finger protein 124 (HZF-16) HZF-16=Kruppel-related zinc finger gene homolog HEP-G2, mRNA, 2080 nt]	2E-60
972	AB002584	Rattus norvegicus mRNA for beta-alanine-pyruvate aminotransferase, complete cds	0.00000002
973	X85133	H.sapiens RBQ-1 mRNA	2E-64
974	AJ130872.1	Porphyromonas gingivalis W50 receptor antigen (rag) locus encoding a major immunodominant 55kDa antigen	1.7
975	U67203	Mus musculus ACF7 neural isoform 1 (mACF7) mRNA, partial cds	2E-66
976	U67203	Mus musculus ACF7 neural isoform 1 (mACF7) mRNA, partial cds	3E-69
977	U55941	Expression vector pVP-HA2, complete sequence.	2E-79
978	AF074331.1	Homo sapiens PAPS synthetase-2 (PAPSS2) mRNA, complete cds	e-173
979	X78684	M.musculus mRNA for B-cell receptor associated protein (BAP) 29	e-100
980	AF060539	Mus musculus channel interacting PDZ domain protein mRNA, complete cds	e-138
981	U55042	Bos taurus myosin X, complete cds	e-119
982	AB000172	Porcine mRNA for endopeptidase 24.16, complete cds	e-131
983	Z57139	H.sapiens CpG island DNA genomic Mse1 fragment, clone 165d10, forward read cpg165d10.ft1a	0.4
984	AB012917	Homo sapiens mRNA for serine protease (TLSP), complete cds	0
985	L39064	Homo sapiens interleukin 9 receptor precursor	6E-15
986	M17374	X.laevis beta-globin mRNA, 5' UTR.	0.36
987	AF045188	Salmo salar ribosomal protein L18a mRNA, complete cds	0.38
988	AF045742	Xenopus laevis Smad7 mRNA, complete cds	0.43

Table 2A: Nearest Neighbor (BlastN vs. Genbank)

SEQ ID	ACC'N	DESCRIP.	P VALUE
989	AF055287	Emericella nidulans molybdenum cofactor biosynthetic protein (cnxF) gene, complete cds	4.4
990	AF045742	Xenopus laevis Smad7 mRNA, complete cds	0.38
991	X03991	Human glucagon gene	0.42
992	AJ131021.1	Mus musculus mRNA for pp90 ribosomal protein S6 kinase 3	2E-17
993	U18168	Human HLA class I genomic survey sequence, contains Alu.	4E-11
994	Z57139	H.sapiens CpG island DNA genomic Mse1 fragment, clone 165d10, forward read cpg165d10.ft1a	0.4
995	AB012917	Homo sapiens mRNA for serine protease (TLSP), complete cds	0
996	AF045742	Xenopus laevis Smad7 mRNA, complete cds	0.38
997	M72411	Human MHC class II HLA-DQA1 gene (DR4,DR4), flanking region and alu repeat.	4E-21
998	J03612	P.yoelii merozoite surface antigen gene, 3' end.	0.13
999	AB007957	Homo sapiens mRNA, chromosome 1 specific transcript KIAA0488	0
1000	AF034265	Gracilaria chilensis 18S ribosomal RNA gene, partial sequence; internal transcribed spacer 1, 5.8S ribosomal RNA gene and internal transcribed spacer 2, complete sequence; and 25S ribosomal RNA gene, partial sequence	0.62
1001	AL080168.1	Homo sapiens mRNA; cDNA DKFZp434C151 (from clone DKFZp434C151)	0
1002	AF121948.1	Homo sapiens telomerase reverse transcriptase	0.001
1003	AF063668.1	Mus musculus type XIII collagen (col13a1) gene, exon 3	2.1
1004	NM_003630.1	Homo sapiens peroxisomal biogenesis factor 3 mRNA for Pex3 protein	0
1005	M35543	Human GTP-binding protein (G25K) mRNA, complete cds.	0.077
1006	U68216	Carica papaya ACC synthase mRNA, complete cds	4
1007	AF133913.1	Mus musculus ARL-6 interacting protein-6	6E-82
1008	NM_000211.1	Homo sapiens integrin beta chain, beta 2 leukocyte adhesion protein (LFA-1/Mac-1/p150,95 family) beta subunit mRNA.	0.65
1009	D10044	Tomato aspermy virus (V-TAV) RNA1	0.02
1010	S82740	NPM/ALK=fusion gene {translocation breakpoint}	0.71
1011	U78776	Treponema denticola gufa gene, partial cds, putative flagellar operon flgB, flgC, fliE, fliF, fliG, fliH, fliI and fliJ genes, complete cds, and fdgA gene, partial cds	0.14

Table 2A: Nearest Neighbor (BlastN vs. Genbank)

SEQ ID	ACCN	DESCRIP.	P VALUE
1012	AF140549.1	Enterococcus faecium unknown gene	0.51
1013	AF124490.1	Homo sapiens ARF GTPase-activating protein GIT1 mRNA, complete cds	e-176
1014	D10044	Tomato aspermy virus (V-TAV) RNA1	0.02
1015	AF088887	Oryctolagus cuniculus interleukin-10 precursor, mRNA, complete cds	0.62
1016	AF121948.1	Homo sapiens telomerase reverse transcriptase	0.29
1018	U78547	Chlamydomonas reinhardtii PF20 mRNA. complete cds	0.0001
1019	AL080145.1	Homo sapiens mRNA; cDNA DKFZp434P113 (from clone DKFZp434P113)	0
1020	M26198	Bovine ASS mRNA encoding argininosuccinate synthetase. complete cds.	0.24
1021	D87686.1	Homo sapiens mRNA for KIAA0017 protein. complete cds	e-175
1022	X56668	Human DNA for calretinin exon 1	0.16
1023	AB007158	Homo sapiens gene for ribosomal protein S23. partial cds	e-114
1024	X83433	O.sativa mRNA for lipid transfer protein. b21	0.66
1025	D32072	Mouse mRNA for an isoform of TGF-b type II receptor	0.074
1026	D26077	Mouse mRNA for KIF3B protein. complete cds	0.3
1027	X80111	D.melanogaster sap47-1 mRNA	2E-09
1028	NM_003951 .1	Homo sapiens solute carrier family 25 member 14 (SLC25A14), nuclear gene encoding mitochondrial product. mRNA >gi|3851539|gb|AF078544|AF078544 Homo sapiens brain mitochondrial carrier protein-1 (BMCP1) mRNA, nuclear gene encoding mitochondrial protein. complete cds	0
1029	AF016422	Caenorhabditis elegans cosmid R09E12	0.0007
1030	NM_006354 .1	Homo sapiens transcriptional adaptor 2 (ADA2, yeast homolog)-3 like (PCAF histone acetylase complex) sapiens ADA3-like protein mRNA. complete cds	0
1031	M17374	X.laevis beta-globin mRNA. 5' UTR.	0.063
1032	M25702	Human thyroid peroxidase (TPO) gene, exon 2.	0.091
1033	AB018257.1	Homo sapiens mRNA for KIAA0714 protein, partial cds	0
1034	L06898	Actinomyces viscosus sialidase (nanH) gene, complete cds.	0.49
1035	Y07521	Mouse neuroblastoma-Rat glioma hybrid cell line mRNA for a potassium channel protein NGK2	0.12
1036	AF153201.1	Homo sapiens zinc finger protein dp mRNA, complete cds	3E-39
1037	AJ010642	Drosophila melanogaster mRNA for Dof protein, transcript I, partial	1.9

Table 2A: Nearest Neighbor (BlastN vs. Genbank)

SEQ ID	ACC'N	DESCRIP.	P VALUE
1038	AB015633.1	Homo sapiens mRNA for type II membrane protein, complete cds, clone:HP10481	7E-23
1039	U86751	Human nucleolar fibrillar center protein (ASE-1) mRNA, complete cds	0.019
1040	NM_001538.1	Homo sapiens heat shock transcription factor 4 (HSF4) mRNA >gi|1813425|dbj|D87673|D87673 Homo sapiens mRNA for heat shock transcription factor 4, complete cds	1E-57
1041	NM_001538.1	Homo sapiens heat shock transcription factor 4 (HSF4) mRNA >gi|1813425|dbj|D87673|D87673 Homo sapiens mRNA for heat shock transcription factor 4, complete cds	1E-57
1042	NM_001283.1	Homo sapiens clathrin-associated/assembly/adaptor protein, small 1 Homo sapiens mRNA for sigma1A subunit of AP-1 clathrin adaptor complex, complete cds	0
1043	L08265	Human skeletal muscle chloride channel (HUMCLC) gene, exon 7.	0.075
1044	U79731	Plasmodium berghei extrachromosomal plastid PB-1, ORF470 gene, partial cds, tRNA-Thr, large subunit ribosomal RNA, tRNA-Met, tRNA-Arg, tRNA-Val, tRNA-Arg, tRNA-Leu, tRNA Asn, tRNA-Ala, and small subunit ribosomal RNA genes...	0.037
1045	X64467	H.sapiens ALAD gene for porphobilinogen synthase	0.019
1046	M17374	X.laevis beta-globin mRNA, 5' UTR.	0.37
1047	AF144573.1	Mesocricetus auratus Mx-interacting protein kinase PKM mRNA, complete cds	2E-18
1048	U79260	Human clone 23745 mRNA, complete cds	7E-26
1049	Z23435	H. sapiens (D1S414) DNA segment containing (CA) repeat; clone AFM179xg5; single read	0.0007
1050	X95439	S.xylosus aroA, ccpA, acuC and acuA genes	0.014
1051	M32676	Human platelet glycoprotein IIIa, intron 10, fragment A.	0.011
1052	AB018284.1	Homo sapiens mRNA for KIAA0741 protein, complete cds	0.0009
1053	AF151843.1	Homo sapiens CGI-85 protein mRNA, complete cds	3E-33
1054	AF132966.1	Homo sapiens CGI-32 protein mRNA, complete cds	0
1055	NM_006466.1	Homo sapiens polymerase (RNA) III (DNA directed) (39kD) (RPC39) mRNA subunit (RPC39) mRNA, complete cds	4E-15
1056	AF086460	Homo sapiens full length insert cDNA clone ZD85A02	e-119
1057	AF036703	Caenorhabditis elegans cosmid T11F8	0.7
1058	AB018344.1	Homo sapiens mRNA for KIAA0801 protein, complete cds	0

Table 2A: Nearest Neighbor (BlastN vs. Genbank)

SEQ ID	ACC'N	DESCRIP.	P VALUE
1059	X81058	M.musculus tex261 mRNA	e-119
1060	AL035046.5	Human DNA sequence from clone 321I20 on chromosome 1q32.1-41 Contains GSSs. complete sequence	0.0001
1061	AF157814.1	Homo sapiens cAMP specific phosphodiesterase	0.00000002
1062	NM_002273 .1	Homo sapiens keratin 8 (KRT8) mRNA keratin 8	e-120
1063	AF131739	Homo sapiens clone 25189 mRNA sequence. complete cds	0
1064	AL049702.1	Human gene from PAC 433G19, chromosome 1	0
1065	AL080125.1	Homo sapiens mRNA; cDNA DKFZp572P0920 (from clone DKFZp572P0920)	3E-19
1066	NM_003422 .1	Homo sapiens zinc finger protein 42	2E-15
1067	Z22175	Caenorhabditis elegans cosmid K01F9, complete sequence [Caenorhabditis elegans]	2
1068	AF039690.1	Homo sapiens antigen NY-CO-8 (NY-CO-8) mRNA, partial cds	1E-37
1069	AL049702.1	Human gene from PAC 433G19. chromosome 1	0
1070	D63850	Mus musculus mRNA for hepatoma-derived growth factor, complete cds, strain:BALB/c	5E-50
1071	AB014603	Homo sapiens mRNA for KIAA0703 protein. complete cds	e-167
1072	NM_006371 .1	Homo sapiens cartilage-associated protein sapiens mRNA for cartilage-associated protein (CASP)	0
1073	U91561	Rattus norvegicus pyridoxine 5'-phosphate oxidase mRNA, complete cds	e-136
1074	NM_003429 .1	Homo sapiens zinc finger protein 85 (HPF4, HTF1) (ZNF85) mRNA >gi|1017721|gb|U35376|HSU35376 Human repressor transcriptional factor (ZNF85) mRNA. complete cds.	2E-51
1075	D63876	Human mRNA for KIAA0154 gene, partial cds	6E-54
1076	AB010059	Homo sapiens RBP56/hTAFII68 gene. exon 3, 4, 5	4E-80
1077	AB002584	Rattus norvegicus mRNA for beta-alanine-pyruvate aminotransferase. complete cds	0.00000002
1078	X85133	H.sapiens RBQ-1 mRNA	0
1079	AF074331.1	Homo sapiens PAPS synthetase-2 (PAPSS2) mRNA, complete cds	e-173

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
7	808943	(X82686) orf4 [bovine adenovirus type 2]	8.30E+00
8	3876268	(Z81067) similar to Zinc finger, C3HC4 type (RING finger) [Caenorhabditis elegans]	8.10E+00
9	2132973	probable membrane protein YPL058c - yeast	4.50E+00
11	2746799	(AF040643) No definition line found [Caenorhabditis elegans]	2.40E-01
12	1086865	(U41272) Similar to human leukocyte surface protein	1.80E-01
13	4680717	(AF132973) CGI-39 protein [Homo sapiens]	1.00E-07
14	5052588	(AF145649) BcDNA.GH08388	4.00E-09
15	2293303	(AF008220) YttA [Bacillus subtilis]	5.90E-02
16	3378132	(AF071502) brahma associated protein 155 kDa [Drosophila melanogaster]	4.20E-01
17	2224605	(AB002330) KIAA0332 [Homo sapiens]	7.30E-01
18	1439625	(U64598) weakly similar to S. cervisiae PTM1 precursor	1.30E+00
19	4758718	mitotic kinesin-like protein 1 PROTEIN-1 >gi|284312|pir||S28262 kinesin-related protein MKLP-1 - human >gi|34672|emb|CAA47628| (X67155) mitotic kinase-like protein-1 [Homo sapiens]	5.60E-01
20	399112	BETA-GALACTOSIDASE (LACTASE)	1.40E-01
26	3785995	(AC005499) unknown protein [Arabidopsis thaliana]	5.90E+00
27	5042442	(AC007789) putative CREB-binding protein [Oryza sativa]	3.50E+00
28	2501404	PUTATIVE ABC TRANSPORTER PERMEASE PROTEIN MJ0087 >gi|2127961|pir||G64310 hemin permease homolog - Methanococcus jannaschii >gi|1590869 (U67466) hemin permease (hemU) [Methanococcus jannaschii]	7.60E+00
29	1706771	5-EXO-ALCOHOL DEHYDROGENASE (FDEH) dehydrogenase [Pseudomonas putida]	6.00E+00
30	5102774	(AJ238893) acyl-CoA thioesterase [Mus musculus]	6.00E-11
31	121896	HISTONE H1.03 >gi|86287|pir||D28456 histone H1.03 - chicken >gi|211832 (M17021) 03 H1 protein [Gallus gallus]	4.80E-01
32	5689493	(AB029001) KIAA1078 protein [Homo sapiens]	1.00E-53
33	4063766	(D87895) chitinase [Emericella nidulans]	1.60E-02
34	4140029	(AB015438) alpha 1 type I collagen [Cynops pyrrhogaster]	2.70E-02
37	1182003	(X87904) putative [Homo sapiens]	2.70E+00
38	1072187	(U40941) coded for by C. elegans cDNA CEESB82F; coded for by C. elegans cDNA CEESE93F [Caenorhabditis elegans]	8.10E+00
39	2832671	(AL021712) hypothetical protein	1.40E+00
40	481043	bat2 protein - human >gi|29375|emb|CAA78744|	1.30E-01
41	1203952	(U49831) similar to D. melanogaster doublesex protein	4.80E+00

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
42	2708329	(AF038564) atrophin-1 interacting protein 4 [Homo sapiens]	8.20E+00
43	464522	TRANSCRIPTION INITIATION FACTOR IIF, ALPHA SUBUNIT (TFIIF-ALPHA) (TRANSCRIPTION INITIATION FACTOR RAP74) >gi|479869|pir||S35551 transcription factor IIF chain RAP74 - African clawed frog IIF subunit [Xenopus laevis]	3.30E-01
44	2384956	(AF022985) No definition line found [Caenorhabditis elegans]	2.00E-28
46	418745	NADH dehydrogenase (ubiquinone) (EC 1.6.5.3) chain 4 - Crithidia oncopelti mitochondrion (SGC6) subunit 4 [Crithidia oncopelti]	8.40E+00
47	289825	(M81391) thrombin [Gallus gallus]	6.30E+00
48	1352968	HYPOTHETICAL 95.4 KD PROTEIN IN MAD2-RNR2 INTERGENIC REGION >gi|1077804|pir||S56801 hypothetical protein YJL029c - yeast (Saccharomyces cerevisiae) >gi|1008148|emb|CAA89320| (Z49304) ORF YJL029c [Saccharomyces cerevisiae]	2.80E+00
49	3878628	(Z93385) predicted using Genefinder; cDNA EST EMBL:D72583 comes from this gene; cDNA EST EMBL:D75500 comes from this gene [Caenorhabditis elegans]	6.00E-03
50	2384956	(AF022985) No definition line found [Caenorhabditis elegans]	3.00E-25
54	5262605	(AL080150) hypothetical protein [Homo sapiens]	2.10E+00
59	4680695	(AF132962) CGI-28 protein [Homo sapiens]	2.40E-01
60	961446	(D63877) KIAA0157 gene product is novel.	1.20E+00
61	3882321	(AB018343) KIAA0800 protein [Homo sapiens]	1.00E-69
62	2864624	(AL021811) putative protein [Arabidopsis thaliana]	1.40E-01
65	1655907	(U65891) protein tyrosine phosphatase CRYP-2 [Gallus gallus]	2.00E+00
66	3983370	(AF102521) olfactory receptor B12 [Mus musculus]	1.80E-01
67	103624	collagen alpha 2 chain - sea urchin 2-alpha collagen precursor (COLL 2-alpha) [Paracentrotus lividus]	1.50E+00
68	3881789	(Z68302) predicted using Genefinder; similar to Pumilio-family RNA binding domains (aka PUM-HD, Pumilio homology domain) (3 domains); cDNA EST EMBL:M89238 comes from this gene; cDNA EST EMBL:D73612 comes from this gene; cDNA ES...	2.50E-01
70	1326281	(U58732) F48D6.2 gene product [Caenorhabditis elegans]	3.40E+00
73	3540219	(D87686) KIAA0017 protein [Homo sapiens]	8.00E-70

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
74	2315742	(AF016681) contains similarity to a sperm coat polysaccaride domain [Caenorhabditis elegans]	1.60E+00
78	5453948	protein phosphatase 1, regulatory subunit 6 >gi|3805797|emb|CAA77081| (Y18206) serine-threonine specific protein phosphatase [Homo sapiens]	6.50E+00
80	1161051	(L39922) efflux protein [Mycobacterium tuberculosis]	8.20E+00
81	4505279	5-methyltetrahydrofolate-homocysteine methyltransferase reductase >gi|2981303 (AF025794) methionine synthase reductase [Homo sapiens]	2.80E+00
82	1722711	MAJOR CAPSID PROTEIN L1 >gi|1020201 type 24]	1.20E+00
84	5453379	(AF155124) bacterial-induced peroxidase precursor [Gossypium hirsutum]	6.30E+00
85	3329139	(AE001339) ABC Transporter Membrane Protein [Chlamydia trachomatis]	1.20E+00
86	222416	(D10453) coat protein [Pea seed-borne mosaic virus]	4.50E+00
87	1778160	(U67304) 70 kDa S6 kinase [Drosophila melanogaster]	2.60E+00
88	1943947	(U90126) ABC transporter [Bos taurus]	2.60E+00
89	3851586	(AF092564) chromosome-associated protein-C [Homo sapiens]	2.00E-03
91	119711	EXTENSIN PRECURSOR carota] >gi|224686|prf||1111211A extensin [Daucus carota]	2.00E-03
93	728838	!!!! ALU SUBFAMILY SX WARNING ENTRY	6.10E-01
95	4406632	(AF131801) Unknown [Homo sapiens]	2.00E-04
97	4585699	(AJ228139) LEKTI precursor [Homo sapiens]	9.00E-52
99	3249026	(AF070067) unknown [Escherichia coli]	7.70E-01
100	4210358	(AL031073) dJ142F18.1 (similar to melanoma-associated antigen) [Homo sapiens]	1.70E-02
101	2137074	ribosomal transcription factor UBF2 - Chinese hamster	7.00E-06
103	3327062	(AB014524) KIAA0624 protein [Homo sapiens]	1.00E-37
106	3328339	(AF075241) prepro-orexin [Sus scrofa]	4.80E+00
108	1055163	(U40029) Contains similarity to Pfam domain: PF01060 (Worm_family_2), Score=203.8, E-value=8.6e-58, N=1 [Caenorhabditis elegans]	7.90E+00

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
109	113333	METHYLPHOSPHOTRIESTER-DNA ALKYLTRANSFERASE >gi|279475|pir||XUBSMM methylphosphotriester-DNA methyltransferase (EC 2.1.1.-) adaA [Bacillus subtilis] >gi|2632448|emb|CAB11957| transcriptional regulator (AraC/XylS family) [Bacillus subtilis] >gi|2632466|emb|CAB11974| (Z99105) methylphosphotriester-DNA alkyltransferase and transcriptional regulator (AraC/XylS family) [Bacillus subtilis] >gi|3599599|dbj|BAA33074| (AB006424) METHYLPHOSPHOTRIESTER-DNA ALKYLTRANSFERASE [Bacillus subtilis]	7.80E+00
110	2143767	glycoprotein - rat >gi|986943 (L08134) glycoprotein [Rattus norvegicus] norvegicus]	2.00E-02
112	2905979	(AF015678) virulence determinant [African swine fever virus]	2.00E+00
113	4867999	(AF078164) Ku70-binding protein	4.00E-60
114	3820909	(AJ010642) Dof protein [Drosophila melanogaster]	1.90E+00
115	2291155	(AF016418) No definition line found [Caenorhabditis elegans]	8.10E+00
120	632500	(U17394) polyadenylation factor 64 kDa subunit [Xenopus laevis]	3.60E+00
121	87792	Ig gamma-3 chain C region (allotype G3m(b)) - human >gi|577056|emb|CAA27268| (X03604) C gamma 3 [Homo sapiens]	1.60E+00
122	3043572	(AB011096) KIAA0524 protein [Homo sapiens]	5.00E-04
125	1729859	TUBULIN GAMMA CHAIN gamma tubulin-like protein [Saccharomyces cerevisiae]	3.50E+00
126	2340169	(AF015783) telomerase reverse transcriptase 1	2.70E+00
127	2131446	hypothetical protein YDR362c - yeast	7.90E-02
130	1616770	(U70731) putative poly(A)-binding protein FabM	1.10E+00
131	3287688	(AC003979) Contains similarity to ycf37 gene product gb|1001425 from Synechocystis sp. genome gb|D63999. ESTs gb|T43026, gb|R64902, gb|Z18169 and gb|N37374 come from this gene. [Arabidopsis thaliana]	8.00E-03
134	1131444	(U42580) PBCV-1 glucosamine synthetase	1.70E+00
135	134952	STREPTOTHRICIN ACETYLTRANSFERASE streptothricin acetyl-transferase (AA 1-174) streptothricin-acetyl-transferase (AA 1-174) acetyltransferase [Transposon Tn7] >gi|2708491 (U84739) streptothricin resistance protein [synthetic construct] acetyltransferase 3' [Cloning vector pSB11]	5.40E-01

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
136	3452684	(D87054) 2-heptaprenyl-1,4-naphthoquinone methyltransferase [Bacillus stearothermophilus]	4.00E-03
137	5360129	(AF155117) NY-REN-62 antigen	8.00E-53
143	1363109	collagen alpha 1(XVIII) chain precursor long form - mouse (fragment) >gi|618430 (U11637) alpha-1 type XVIII collagen precursor [Mus musculus]	3.70E+00
145	113671	!!!! ALU CLASS F WARNING ENTRY !!!!	1.40E+00
146	3874135	(Z54342) similar to acid phosphatase elegans]	7.00E-22
148	1279390	(X97329) HER-1 protein [Danio rerio]	7.50E+00
149	4557639	orexin receptor 2 >gi|2897128 receptor [Homo sapiens]	6.20E+00
150	4262630	(AF125963) No definition line found	3.20E+00
152	102129	H+-transporting ATP synthase (EC 3.6.1.34) protein 6 - Trypanosoma brucei mitochondrion (SGC6)	2.80E+00
156	996018	(X91637) BRG1 protein [Gallus gallus]	5.70E+00
157	3158498	(AF067622) Contains similarity to Pfam domain: PF00628 (PHD). Score=36.7, E-value=1.7e-07, N=2	2.70E-02
158	1117913	(U40223) uridine nucleotide receptor [Homo sapiens]	2.70E+00
162	5430752	(AC007504) Hypothetical Protein	3.80E-02
167	226120	vicilin gene B [Saguinus oedipus]	8.30E+00
169	4557335	aspartoacylase (aminoacylase 2) aspartoacylase - human >gi|455834|bbs|140585 (S67156) aspartoacylase, ASP [human, kidnay, Peptide, 313 aa]	7.30E+00
170	5031129	(AF082859) lungkine [Mus musculus]	8.60E+00
173	4678899	(AL049707) putative large glycine/alanine rich protein [Streptomyces coelicolor]	2.10E-01
174	728831	!!!! ALU SUBFAMILY J WARNING ENTRY	2.00E-02
175	3004981	(AF039652) ribonuclease H type II [Homo sapiens]	2.00E-27
177	2911366	(AF041047) NADPH HC toxin reductase [Zea mays]	9.60E-02
178	2217964	(Z50798) p52 [Gallus gallus]	1.00E-12
179	3873707	(Z73102) Similarity to B.subtilis DNAJ protein (SW:DNAJ_BACSU); cDNA EST yk437a1.5 comes from this gene [Caenorhabditis elegans]	3.00E-19
180	3043658	(AB011139) KIAA0567 protein [Homo sapiens]	2.00E-03
182	5689451	(AB028980) KIAA1057 protein [Homo sapiens]	7.00E-10
183	728831	!!!! ALU SUBFAMILY J WARNING ENTRY	5.00E-03
186	2588623	(AC003083) mitochondrial carrier protein-like; similar to Q09461 (PID:g2497990) [Homo sapiens]	3.00E-69
187	1669601	(D88747) AR401 [Arabidopsis thaliana]	2.00E-20
190	126296	LINE-1 REVERSE TRANSCRIPTASE HOMOLOG protein [Nycticebus coucang]	3.20E-01

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
191	3294180	(Z99129) dJ425C14.2 (Placental protein DIFF33 LIKE) [Homo sapiens]	4.00E-20
192	5030439	(AC007766) R26610_1 [Homo sapiens]	7.00E-56
193	4507375	tubulin-specific chaperone e	7.00E-05
195	1698455	(U49974) mariner transposase [Homo sapiens]	2.00E-05
196	1709285	PUTATIVE PYRUVATE-FLAVODOXIN OXIDOREDUCTASE >gi|1006618|dbj|BAA10774| (D64005) pyruvate oxidoreductase [Synechocystis sp.]	8.00E+00
197	3878584	(Z77667) cDNA EST EMBL:C08125 comes from this gene; cDNA EST EMBL:C09753 comes from this gene	2.00E-04
198	1658503	(U75467) Atu [Drosophila melanogaster]	2.00E-44
199	2655422	(AF035530) CDC37 [Gallus gallus]	2.00E-09
200	4557817	3-oxoacid CoA transferase precursor: succinyl-CoA:3-ketoacid-CoA transferase precursor >gi|2492998|sp|P55809|SCOT_HUMAN SUCCINYL-COA:3-KETOACID-COENZYME A TRANSFERASE PRECURSOR transferase precursor [Homo sapiens]	3.20E+00
201	4506403	UNKNOWN >gi|4063890 (AF095448) putative G protein-coupled receptor [Homo sapiens]	4.00E-35
202	3880146	(Z68319) Similarity to Human hnRNP F protein (PIR Acc. No. S43484); cDNA EST EMBL:D34218 comes from this gene; cDNA EST EMBL:D37248 comes from this gene; cDNA EST EMBL:D71817 comes from this gene; cDNA EST EMBL:D74531 comes fro... hnRNP F protein (PIR Acc. No. S43484); cDNA EST EMBL:D34218 comes from this gene; cDNA EST EMBL:D37248 comes from this gene; cDNA EST EMBL:D71817 comes from this gene; cDNA EST EMBL:D74531 comes fro...	1.00E-01
203	3877198	(Z69903) predicted using Genefinder; Similarity to Rat casein kinase I (SW:KC1D_RAT); cDNA EST EMBL:D65322 comes from this gene; cDNA EST EMBL:D68704 comes from this gene; cDNA EST yk475f2.5 comes from this gene [Caenorhabditis...	1.20E+00
204	987050	(X65335) lacZ [Cloning vector pSV-beta-Galactosidase Control]	4.00E-06
205	1438677	(U62376) envelope protein [Simian immunodeficiency virus]	3.60E+00
206	2193870	(D84391) reverse transcriptase [Mus musculus]	6.00E-06
207	5032069	spliceosome-associated protein ASSOCIATED PROTEIN 49 (SAP 49) (SF3B53) SAP-49 - human >gi|556217 (L35013) spliceosomal protein	2.20E+00

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
209	5032069	spliceosome-associated protein ASSOCIATED PROTEIN 49 (SAP 49) (SF3B53) SAP-49 - human >gi|556217 (L35013) spliceosomal protein	2.10E+00
210	729264	CYTOCHROME B >gi|625356|pir||S43269 ubiquinol--cytochrome-c reductase (EC 1.10.2.2) cytochrome b - humpback whale mitochondrion (SGC1)	4.60E+00
211	2088713	(AF003139) Similar to cuticular collagen [Caenorhabditis elegans]	4.20E-01
212	2276366	(Z97992) putative glucan synthase	8.40E+00
213	4589684	(AB023234) KIAA1017 protein [Homo sapiens]	2.00E-65
214	4504739	ITBA1 protein	1.00E-10
217	1703364	TRANSCRIPTIONAL REGULATORY PROTEIN ARAB >gi|995682|emb|CAA62739| (X91393) abaB	7.50E-01
218	2769595	(Y16135) 5HT2B receptor [Canis familiaris]	8.20E+00
219	3002527	(AF010144) neuronal thread protein AD7c-NTP [Homo sapiens]	5.00E-05
221	1463014	(U08794) envelope glycoprotein [Human immunodeficiency virus type 1]	7.70E+00
222	1709230	NBL4 PROTEIN >gi|543191|pir||JU0188 band 4.1 superfamily member protein - mouse	3.00E-23
223	120223	FK506-BINDING PROTEIN (FKBP-12) FK506-binding protein - mouse >gi|50971|emb|CAA42762| musculus]	1.00E-19
224	987050	(X65335) lacZ [Cloning vector pSV-beta-Galactosidase Control]	2.00E-15
225	2558516	(AJ001119) Rab5 GDP/GTP exchange factor, Rabex5 [Bos taurus]	2.00E-36
226	2558501	(D63850) hepatoma-derived growth factor	7.00E-30
227	5410326	(AF106680) RNA helicase [Homo sapiens]	2.00E-45
228	631772	TEG-261 protein - mouse	5.00E-48
229	3851492	(AF041853) kinesin family member protein KIF3A [Homo sapiens]	3.00E-56
231	4504983	lectin, galactoside-binding, soluble, 3 (galectin 3) (NOTE: redefinition of symbol) BINDING PROTEIN 35) (CBP 35) (LAMININ-BINDING PROTEIN) galactoside-binding - human >gi|179531 (M57710) IgE-binding protein [Homo sapiens] >gi|186922 (M36682) laminin-binding protein [Homo sapiens]	6.00E+00
240	3873717	(Z81453) predicted using Genefinder	3.70E+00
241	3413884	(AB007930) KIAA0461 perotein [Homo sapiens]	3E-48
242	1834503	(Z72496) mucin MUC5B [Homo sapiens]	4.50E-01

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
243	131442	PRESTALK PROTEIN PRECURSOR mold (Dictyostelium discoideum)	1.2
244	3834629	(AF094519) diaphanous-related formin; p134 mDia2 [Mus musculus]	5E-54
245	2996650	(AC004493) KIAA0324 [Homo sapiens]	0.05
246	731604	HYPOTHETICAL 130.0 KD PROTEIN IN SNF6-SPO11 INTERGENIC REGION >gi|626572|pir||S46837 hypothetical protein YHL023c - yeast (Saccharomyces cerevisiae) >gi|2289893 (U11582) No definition line found [Saccharomyces cerevisiae]	0.036
247	5670007	(AF156102) ELL complex EAP30 subunit	5.00E-66
248	1122431	(X92968) protein SIC [Streptococcus pyogenes]	0.001
249	462022	ER LUMEN PROTEIN RETAINING RECEPTOR falciparum >gi|398385|emb|CAA81128| (Z26043) ERD2	8.80E+00
250	3850153	(AL033396) cytochrome P450 [Candida albicans]	8.8
251	2315228	(Z98260) hypothetical protein Rv1227c	1.00E+00
252	3800952	(AF100657) Contains similarity to Pfam domain: PF00614 (PLDc), Score=13.8, E-value=0.2, N=1	5.00E-24
253	4507145	UNKNOWN >gi|3873216 (AF065485) sorting nexin 4 [Homo sapiens]	3.00E-51
258	5410355	(AF125392) insulin induced protein 2 [Homo sapiens]	2.10E+00
261	2905647	(AF045245) D-arabinitol kinase [Klebsiella pneumoniae]	6.5
262	4928673	(AF136343) Cul-1 [Drosophila melanogaster]	6.50E+00
263	3876644	(Z81526) predicted using Genefinder; cDNA EST EMBL:D36935 comes from this gene; cDNA EST EMBL:D33960 comes from this gene; cDNA EST EMBL:C12255 comes from this gene; cDNA EST EMBL:C10859 comes from this gene; cDNA EST EMBL:C1...	6.20E+00
264	1808621	(X94355) D18L [Cowpox virus]	3.70E+00
265	628784	plasmid copy number control protein - Escherichia coli >gi|473802|dbj|BAA05591| (D26562) coli]	2.90E+00
266	4505727	peroxisomal biogenesis factor 3 PROTEIN PEX3 (PEROXIN-3) >gi|3336882|emb|CAA04879| sapiens] >gi|4218426|emb|CAA08904| (AJ009866) Pex3p	4.00E-59
268	4322053	(AF071242) homeobox protein [Danio rerio]	3.50E+00
273	5105878	(AP000063) 194aa long hypothetical protein [Aeropyrum pernix]	6.50E+00

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
274	3877495	(Z48583) cDNA EST EMBL:T00483 comes from this gene; cDNA EST EMBL:D64526 comes from this gene; cDNA EST EMBL:D65147 comes from this gene; cDNA EST EMBL:D68484 comes from this gene; cDNA EST EMBL:D67548 comes from this gene; c... >gi|3879229|emb|CAA88749| EST EMBL:D64526 comes from this gene; cDNA EST EMBL:D65147 comes from this gene; cDNA EST EMBL:D68484 comes from this gene; cDNA EST EMBL:D67548 comes from this gene; cDN...	6.7
275	3322592	(AE001211) T. pallidum predicted coding region TP0311	1.90E+00
276	1176495	HYPOTHETICAL 79.4 KD PROTEIN IN PRP16-SRP40 INTERGENIC REGION >gi|486577|emb|CAA82169|	2.1
277	4691726	(AF124490) ARF GTPase-activating protein GIT1 [Homo sapiens]	3E-68
278	3702844	(AF069051) pituitary tumor transforming gene protein	5.80E+00
279	3882163	(AB018264) KIAA0721 protein [Homo sapiens]	6.00E-59
280	1072187	(U40941) coded for by C. elegans cDNA CEESB82F; coded for by C. elegans cDNA CEESE93F [Caenorhabditis elegans]	7.4
282	3322397	(AE001198) T. pallidum predicted coding region TP0130	1.80E+00
283	3417412	(AL031261) putative superoxide dismutase	2.9
284	2245121	(Z97343) hypothetical protein	0.45
285	2924311	(AJ000882) steroid receptor coactivator 1e	8.6
286	3323285	(AE001264) ABC transporter, ATP-binding protein	8.5
287	4981435	(AE001755) hypothetical protein	2.9
288	4826818	LIM and senescent cell antigen-like domains 1 >gi|1346721|sp|P48059|PINC_HUMAN PINCH PROTEIN (PARTICULARY INTERESTING NEW CYS-HIS PROTEIN) >gi|631281|pir||JC2324 LIM protein - human	6.5
291	104506	troponin T, fast skeletal muscle, embryonic alpha (clone 501) Japanese quail >gi|213628 (M26599) troponin T [Coturnix coturnix]	4.8
292	2736462	(AF039048) similar to cdc25-like M-phase inducer phosphatases [Caenorhabditis elegans]	2.8
293	1708966	SPERM MITOCHONDRIAL CAPSULE SELENOPROTEIN (MCS)	0.74
294	4914378	(AC007584) hypothetical protein [Arabidopsis thaliana]	3E-10
295	5524931	(AL096842) hypothetical protein [Homo sapiens]	3E-64

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
296	128155	LOW-AFFINITY NERVE GROWTH FACTOR RECEPTOR PRECURSOR (NGF RECEPTOR) (GP80-LNGFR) (P75 ICD) affinity - chicken	0.00001
298	4205113	(AF000520) cell wall invertase [Fragaria x ananassa]	2.7
299	3702106	(AL031765) MSK (EC 2.7.1.-) (HRT-20) (MYOCARDIAL SNF1-LIKE KINAS...	0.79
300	4325123	(AF119361) unknown [Frankia sp. EuIK1]	2.8
301	417737	MITOCHONDRIAL RIBOSOMAL PROTEIN S14 polymorpha=liverwort, Peptide Mitochondrial, 99 aa]	3.6
302	2289030	(U53564) N-terminal region of the protein [Mus musculus]	2.8
303	2318003	(U97553) unknown [murine herpesvirus 68]	0.037
304	3123176	HYPOTHETICAL 43.1 KD TRP-ASP REPEATS CONTAINING PROTEIN K04G11.4 IN CHROMOSOME X Genefinder; Similarity to C.elegans Guanine nucleotide binding protein (WP:C14B1.4) [Caenorhabditis elegans]	6E-09
305	5106956	(AF113615) FH1/FH2 domain-containing protein FHOS [Homo sapiens]	1E-51
311	5059323	(AF151522) hairy and enhancer of split related-1 [Homo sapiens]	0.31
312	728831	!!!! ALU SUBFAMILY J WARNING ENTRY	4.7
313	4226073	(AF125443) contains similarity to S. pombe phosphatidyl synthase (GB:Z28295) [Caenorhabditis elegans]	2E-23
317	2822320	(AF016485) ORF H0532 [Halobacterium sp. NRC-1] >gi|2822445|gb|AAC82951.1| (AF016485) ORF H1831	7.9
318	2983553	(AE000721) major facilitator family transporter [Aquifex aeolicus]	3.5
319	4689225	(AF118379) gamma-tubulin ring protein Dgrip84 [Drosophila melanogaster]	0.23
322	1326337	(U58746) coded for by C. elegans cDNA yk3b11.5; coded for by C. elegans cDNA yk13g1.5; coded for by C. elegans cDNA yk3b11.3; coded for by C. elegans cDNA CEESR37F; coded for by C. elegans cDNA yk13g1.3; Similar to phospholipase. [Caenorhab...	4.5
323	2708738	(AC003952) hypothetical protein [Arabidopsis thaliana]	6E-10
326	4929629	(AF151838) CGI-80 protein [Homo sapiens]	8.1
327	4050073	(AF103731) putative glycolipid transfer protein [Homo sapiens]	2E-38
328	1905892	(L39835) Na/Ca exchange protein [Drosophila melanogaster]	0.14
329	4972120	(AL078579) putative protein [Arabidopsis thaliana]	2E-08

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
330	4884202	(AL049953) hypothetical protein [Homo sapiens]	1E-39
332	2981631	(AB012223) ORF2 [Canis familiaris]	0.098
333	1723611	HYPOTHETICAL TRANSCRIPTIONAL REGULATOR IN GLVC-LIPB INTERGENIC REGION subtilis] >gi|2633149|emb|CAB12654| (Z99108) similar to transcriptional regulator (AraC/XylS family) [Bacillus subtilis]	9.9
334	3881873	(Z83246) predicted using Genefinder; cDNA EST EMBL:M79771 comes from this gene [Caenorhabditis elegans]	1.3
335	3641352	(AF091234) putative transcription factor [Mus musculus]	2E-43
336	3874427	(Z78416) predicted using Genefinder; Similarity to S.pombe RAD18 gene (TR:E198069); cDNA EST CEESX52R comes from this gene; cDNA EST EMBL:D32785 comes from this gene; cDNA EST EMBL:D35528 comes from this gene; cDNA EST EMBL:D37...	0.0000006
341	1492037	(U60315) MC094R [Molluscum contagiosum virus subtype 1]	8.5
342	3201625	(AC004669) hypothetical protein [Arabidopsis thaliana]	6.2
343	5103944	(AP000059) 216aa long hypothetical protein [Aeropyrum pernix]	3.8
344	139140	RNA REPLICATION PROTEIN (165 KD PROTEIN) (ORF 1) [CONTAINS: RNA-DIRECTED RNA POLYMERASE RNA-replicating protein [Potato virus X] >gi|309911	5.9
345	1085126	juvenile hormone esterase-related protein - cabbage looper	4.9
346	1613846	(U71440) polyprotein [Rice tungro spherical virus]	0.73
354	60900	(X03614) alternative form of op-6 (aa 1-1980) [Human parainfluenza virus 1]	0.35
355	3287370	(AC002397) B [Mus musculus]	0.003
356	2622601	(AE000909) serine/threonine protein kinase related protein [Methanobacterium thermoautotrophicum]	2E-10
358	130489	STRUCTURAL POLYPROTEIN [CONTAINS: MAJOR STRUCTURAL PROTEIN VP2; NONSTRUCTURAL PROTEIN VP4; MINOR STRUCTURAL PROTEIN VP3] >gi|75451|pir||GNXSOH genome polyprotein - infectious bursal disease virus structural polyprotein [Infectious bursal disease virus]	9.7
359	2996337	(AF053947) CobT homolog [Yersinia pestis]	0.86
360	3644048	(AF091395) Trio isoform [Homo sapiens]	7.1
363	3845280	(AE001418) hypothetical protein [Plasmodium falciparum]	0.8

Tabl 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
364	1208844	(U49956) coded for by C. elegans cDNA yk57d5.5; coded for by C. elegans cDNA cm20e2; coded for by C. elegans cDNA cm06f2 [Caenorhabditis elegans]	4
366	3193245	(AF068709) No definition line found [Caenorhabditis elegans]	2.9
368	5262568	(AL080129) hypothetical protein [Homo sapiens]	1E-35
371	3261730	(Z92774) nhoA [Mycobacterium tuberculosis]	3.5
373	2131482	hypothetical protein YDR426c - yeast	7.7
374	2146218	hypothetical protein E30_orf352 - Mycoplasma pneumoniae (SGC3) (ATCC 29342) >gi|1673872 (AE000021) Mycoplasma pneumoniae, E30_orf352 Protein [Mycoplasma pneumoniae]	7.8
375	2911866	(AF047660) contains similarity to steroid/thyroid/retinoic nuclear hormone receptors: contains similarity to C4-type zinc fingers	2.7
377	3878117	(Z49068) mitochondrial carrier protein	5.7
378	2804500	(AF043706) contains similarity to granulins [Caenorhabditis elegans]	0.18
380	4154882	(AE001471) ATP-DEPENDENT ZINC METALLOPEPTIDASE	4.7
381	2047346	(AF000198) Similar to cuticular collagen [Caenorhabditis elegans]	0.31
382	135454	TUBULIN BETA-2 CHAIN Emericella nidulans >gi|168107 (M17520) beta-tubulin beta [Emericella nidulans]	1.5
387	3256691	(AP000001) 128aa long hypothetical protein [Pyrococcus horikoshii]	3.6
388	4033606	(AB008227) Extensin [Adiantum capillus-veneris]	0.33
391	3036835	(AJ003243) bradykinin B2 receptor [Cavia porcellus]	7.9
392	5306171	(AF160864) NADH dehydrogenase subunit 4 [Tetrahymena pyriformis]	1.6
393	2131472	hypothetical protein YDR409w - yeast CAI: 0.12 [Saccharomyces cerevisiae]	0.43
394	418745	NADH dehydrogenase (ubiquinone) (EC 1.6.5.3) chain 4 - Crithidia oncopelti mitochondrion (SGC6) subunit 4 [Crithidia oncopelti]	3.3
398	422408	cyclodiene insecticide resistance protein - yellow fever mosquito >gi|881590 (U28803) GABA receptor subunit [Aedes aegypti]	1.1
400	4050089	(AF109907) hypothetical protein [Homo sapiens]	1.6

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACC'N	DESCRIP.	P VALUE
401	3875400	(Z73906) cDNA EST EMBL:M88866 comes from this gene [Caenorhabditis elegans]	2.1
402	3874821	(Z35641) cDNA EST yk273d8.5 comes from this gene [Caenorhabditis elegans]	9E-10
404	4493761	(AL034368) predicted using hexExon; L779.2, Hypothetical protein, len: 4125 aa [Leishmania major]	6.6
407	2598627	(AJ000870) histidine kinase [Streptococcus gordonii]	6
408	2842531	(AB004291) gamma-subunit of enolase	3.5
409	728836	!!!! ALU SUBFAMILY SP WARNING ENTRY	0.37
415	728832	!!!! ALU SUBFAMILY SB WARNING ENTRY	0.95
416	2088675	(AF003131) C. elegans UNC-89 (GB:U33058) (NID:g1160355)	1.2
417	102189	myosin I, high molecular weight - Acanthamoeba sp	0.0005
418	2072961	(U93568) putative p150 [Homo sapiens]	0.008
422	1705706	P-TYPE CALCIUM CHANNEL ALPHA-1 SUBUNIT (RBA-I) >gi|111447|pir||A41098 calcium channel protein alpha-1 chain isoform A - rat >gi|203111 norvegicus]	3.6
424	1781316	(Y10290) formamidopyrimidine-DNA glycosylase [Synechococcus elongatus]	4.9
425	1183033	(D63821) polyprotein [Hepatitis C virus]	7.5
426	3347920	(AF075261) orphan transporter [Mus musculus]	2.9
428	1333929	(X66285) HC1 ORF [Mus musculus]	0.086
429	3121994	DNAJ PROTEIN japonicum]	1.2
431	5689523	(AB029016) KIAA1093 protein [Homo sapiens]	0.001
432	4887240	(AF064564) WSB1 protein [Fugu rubripes] rubripes]	0.013
433	130553	RNA REPLICASE POLYPROTEIN 2.7.7.48) - Ononis yellow mosaic virus >gi|332574 virus]	0.3
435	897917	(U28249) 11kD protein [Homo sapiens]	0.25
441	2072958	(U93567) putative p150 [Homo sapiens]	0.002
444	728831	!!!! ALU SUBFAMILY J WARNING ENTRY	0.008
446	4210496	(U61384) GAS41 protein [Homo sapiens]	9E-59
447	1002672	(U30261) G protein beta subunit-like; Method: conceptual translation supplied by author [Schistosoma mansoni]	1E-31
448	4680703	(AF132966) CGI-32 protein [Homo sapiens]	6E-67
450	1255371	(U53147) coded for by C. elegans cDNA yk34a9.5; coded for by C. elegans cDNA yk34a9.3; Similar to guanylate kinase. [Caenorhabditis elegans]	4E-23
451	1078718	reverse transcriptase - Trypanosoma cruzi transcriptase [Trypanosoma cruzi]	0.91
452	728832	!!!! ALU SUBFAMILY SB WARNING ENTRY	0.082
453	106323	hypothetical protein (L1H 5' region) - human	0.58

Table 2B Nearest Neighbor (BlastX vs. Non-R dundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
454	1345693	CHLORAMPHENICOL ACETYLTRANSFERASE acetyltransferase, CAT [Vibrio anguillarum=pJA7324, Peptide Plasmid, 216 aa] [Vibrio anguillarum]	8.4
455	3413884	(AB007930) KIAA0461 perotein [Homo sapiens]	8E-78
456	2072972	(U93572) putative p150 [Homo sapiens]	0.003
458	1504042	(D86984) similar to yeast adenylate cyclase (S56776) [Homo sapiens]	7E-10
460	729774	HEAT SHOCK FACTOR PROTEIN HSF30 STRESS TRANSCRIPTION FACTOR) >gi|100265|pir||S25480 heat shock transcription factor HSF30 - Peruvian tomato transcription factor HSF30 [Lycopersicon peruvianum]	8.1
462	728831	!!!! ALU SUBFAMILY J WARNING ENTRY	0.006
464	1351218	TESTIN 2 (TES2) [CONTAINS: TESTIN 1 (TES1)] >gi|2137810|pir||I48842 testin - mouse	7.8
465	4160198	(AL008583) dJ327J16.3 (novel CHROMObox family protein) [Homo sapiens]	1E-20
466	4454690	(AF070657) glutathione S-transferase subunit 13 homolog [Homo sapiens]	2E-25
467	3873871	(Z81030) similar to citrate lyase beta chain; cDNA EST yk302b4.5 comes from this gene	3E-41
468	2690136	(AE000788) conserved hypothetical protein [Borrelia burgdorferi]	4.7
469	3327192	(AB014589) KIAA0689 protein [Homo sapiens]	0.000006
470	121654	GASTRULA-SPECIFIC PROTEIN 17 African clawed frog >gi|64733|emb|CAA28842| (X05215) GS17 gene product (AA 1 - 147) [Xenopus laevis]	0.9
471	2506774	KERATIN, TYPE II CYTOSKELETAL 8	2E-42
472	4768838	(AF116910) putative ribonuclease III [Homo sapiens]	6E-74
473	4406551	(AF131739) Unknown [Homo sapiens]	2E-54
474	4454704	(AF070664) HSPC008 [Homo sapiens] protein [Homo sapiens]	3E-39
475	4678836	(AL049701) hypothetical protein [Homo sapiens]	6E-43
477	3025319	ZINC FINGER PROTEIN 195 >gi|2384653 sapiens]	3E-11
479	3327098	(AB014542) KIAA0642 protein [Homo sapiens]	5E-20
480	2506062	(D85196) cut4+ [Schizosaccharomyces pombe]	4.7
481	220579	(D00570) open reading frame (196 AA) [Mus musculus]	1.7
482	4758756	nucleosome assembly protein 1-like 1 >gi|1709337|sp|P55209|NPL1_HUMAN NUCLEOSOME ASSEMBLY PROTEIN 1-LIKE 1 (NAP-1 RELATED PROTEIN)	2E-26
484	1778432	(U79660) Treacher Collins syndrome [Homo sapiens]	2.9

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACC'N	DESCRIP.	P VALUE
485	4507455	transferrin receptor 2 sapiens]	3E-35
488	1184790	(U46068) von Ebner minor salivary gland protein [Mus musculus]	0.065
489	3876562	(Z81074) Similarity to Soybean 3-methylcrotonyl-CoA carboxylase (TR:Q42777); cDNA EST EMBL:M75819 comes from this gene; cDNA EST EMBL:M89099 comes from this gene; cDNA EST EMBL:D32737 comes from this gene; cDNA EST EMBL:D32763 ...	7E-41
490	746552	(U23523) F53A9.1 gene product [Caenorhabditis elegans]	6.7
491	2981631	(AB012223) ORF2 [Canis familiaris]	0.037
492	1401210	(U58510) putative RNA polymerase II subunit	4.8
493	3170180	(AF039690) antigen NY-CO-8 [Homo sapiens]	0.26
496	1778838	(U83113) INS-1 winged-helix homolog [Homo sapiens]	2.8
497	549779	PUTATIVE MYCOCEROSYL TRANSFERASE IN MAS 5'REGION >gi|322248|pir||A44110 orf I 5' of mas - Mycobacterium tuberculosis >gi|149979 (M95808) ORF	8.2
498	3877493	(Z48583) similar to ATPases associated with various cellular activities (AAA); cDNA EST EMBL:Z14623 comes from this gene; cDNA EST EMBL:D75090 comes from this gene; cDNA EST EMBL:D72255 comes from this gene; cDNA EST yk200e4....	3E-14
500	3879937	(Z68220) T20D3.3 [Caenorhabditis elegans]	0.0000003
501	1170551	MITOCHONDRIAL INNER MEMBRANE PROTEASE SUBUNIT 2 >gi|1078046|pir||S53952 proteinase 2 precursor, mitochondrial inner membrane - yeast	4E-13
502	4210989	(AF121781) unknown [Homo sapiens]	0.007
503	4826454	(Z93241) dJ222E13.3.2 (PUTATIVE partial isoform 2) [Homo sapiens]	2E-46
504	5381426	(AF159046) SPANK-1 [Rattus norvegicus]	0.12
505	3687833	(AF069737) notchless [Xenopus laevis]	1E-65
506	2558501	(D63850) hepatoma-derived growth factor	3E-24
507	1061310	(M98326) valyl-tRNA synthetase [Homo sapiens]	2E-17
508	4503179	gene encoding a protein with coiled-coil alpha-helical domains protein [Homo sapiens]	3E-35
509	4096591	(U33460) DNA-directed RNA polymerase I, largest subunit [Homo sapiens]	6.3
510	4836515	(AF124788) WS-3 protein [Mus musculus]	5E-10
511	4507867	vessicle-associated membrane protein (VAMP)-associated protein of 33 kDa >gi|3320446 sapiens]	9E-33
512	5262560	(AL080125) hypothetical protein [Homo sapiens]	1E-41

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
513	134039	SMALL NUCLEAR RIBONUCLEOPROTEIN SM D1 (SNRNP CORE PROTEIN D1) (SM-D1) (SM-D AUTOANTIGEN) Sm-D [Homo sapiens] >gi|1256741 (M58558) Sm-D autoantigen [Mus musculus]	6E-13
514	4165247	(AL021397) dJ69E11.3 (Yeast YPR037W and worm C02C2.6 predicted proteins LIKE) [Homo sapiens] protein [Homo sapiens]	2E-52
515	3327220	(AB014603) KIAA0703 protein [Homo sapiens]	5E-53
516	4506599	ribosomal protein L13 L13 (BREAST BASIC CONSERVED PROTEIN 1) sapiens]	0.0000003
517	3877201	(Z70780) cDNA EST yk465d10.3 comes from this gene; cDNA EST yk465d10.5 comes from this gene; cDNA EST yk481d9.5 comes from this gene [Caenorhabditis elegans]	0.00002
519	5453601	cartilage-associated protein cartilage-associated protein (CASP) [Homo sapiens]	8E-70
520	4633085	(AF102507) fizzy-related protein [Homo sapiens]	7E-60
521	3237304	(U91561) pyridoxine 5'-phosphate oxidase [Rattus norvegicus]	6E-37
522	2565196	(AF000381) non-functional folate binding protein [Homo sapiens]	1E-17
523	3108057	(AF060539) channel interacting PDZ domain protein [Mus musculus]	3E-63
524	4160432	(AF071592) kinesin superfamily motor KIF4 [Homo sapiens]	8E-62
525	423916	myosin-I, Myr 1b (alternatively spliced) - rat	1E-66
526	2687591	(AF033201) clipper/cleavage and polyadenylation specificity factor 30 kDa subunit homolog [Mus musculus]	4E-69
527	464555	RAS-RELATED PROTEIN RAB-12 >gi|206531	6E-70
529	2737967	(U82992) envelope glycoprotein [Human immunodeficiency virus type 1]	9.6
530	1351047	SCARLET PROTEIN >gi|1079665	7.9
531	2924445	(AL022022) PE_PGRS [Mycobacterium tuberculosis]	7.5
532	2078307	(U67264) AcMNPV ORF8/ORF1629 homolog [Helicoverpa zea nuclear polyhedrosis virus]	4.5
533	2078307	(U67264) AcMNPV ORF8/ORF1629 homolog [Helicoverpa zea nuclear polyhedrosis virus]	4.4
534	972711	(L47121) bacteriocin [Carnobacterium piscicola]	4.2
535	2895941	(AF047011) prointerleukin-1 alpha [Canis familiaris]	2.5
536	283868	collagen alpha 1(XI) chain - chicken	2.4
537	2052126	(Z94752) hypothetical protein Rv0992c	0.17

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
538	2317926	(U97553) complement regulatory protein [murine herpesvirus 68]	0.0006
539	3242649	(AB015440) alpha 1 type I collagen [Rana catesbeiana]	0.98
540	540952	hypothetical protein - Pseudomonas aeruginosa aeruginosa]	2.6
542	4886288	(AL050300) putative protein [Arabidopsis thaliana]	0.22
543	3322778	(AE001225) conserved hypothetical protein [Treponema pallidum]	9.6
544	1772556	(Y07850) neurofibromin [Hylobates concolor] >gi|1772563|emb|CAA69179| (Y07853) Neurofibromin [Homo sapiens] >gi|1772576|emb|CAA69180|	9.5
545	1083477	protein-tyrosine-phosphatase (EC 3.1.3.48), receptor type delta, splice form D precursor - mouse	0.08
546	1326298	(U58736) Similar to cuticular collagen. [Caenorhabditis elegans]	0.005
547	4007418	(AF071538) Ets transcription factor PDEF [Homo sapiens]	2E-70
548	4504469	homeo box B5 homeotic protein Hox 2.1 - human >gi|184293 (M92299) homeobox protein [Homo sapiens]	0.64
550	3367649	(Y16349) convulxin alpha [Crotalus durissus]	9.7
551	2808634	(AJ001909) transcriptional activator	0.69
553	1127550	(U18939) orf1 [Battrachocottus baikalensis]	4.6
555	2498512	LDLC PROTEIN protein LDLC - human >gi|575654|emb|CAA84427| (Z34975) ldlCp [Homo sapiens]	6.5
556	5579050	(AL096874) hypothetical protein	3.5
557	3327421	(U97068) zonadhesin [Mus musculus]	4.4
558	2493011	PROBABLE CALCIUM-TRANSPORTING ATPASE 8 >gi|1078570|pir||S54520 probable membrane protein YMR162c - yeast (Saccharomyces cerevisiae) cerevisiae]	3.3
559	3242240	(AJ225122) hyperpolarization-activated cation channel, HAC1 [Mus musculus]	1.1
560	780367	(L41686) ORF [Rattus norvegicus]	1.1
561	3327226	(AB014606) KIAA0706 protein [Homo sapiens]	0.41
562	4886501	(AL050275) hypothetical protein [Homo sapiens]	1.1
565	5105067	(AP000061) 111aa long hypothetical protein [Aeropyrum pernix]	0.51
566	1079404	filamin, Mueller cell - chicken >gi|392018	4.2
567	4680264	(AF121977) odorant receptor S25	2.4
570	4927208	(AF133913) ARL-6 interacting protein-6 [Mus musculus]	5E-29
571	1749774	(Y10018) ANON-66Db [Drosophila melanogaster]	0.079
572	5104722	(AP000060) 224aa long hypothetical protein [Aeropyrum pernix]	9.9

Table 2B N arest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
573	320133	carbonate dehydratase (EC 4.2.1.1) - tiger shark (fragments) >gi|226952|prf||1612265A carbonic anhydrase [Galeocerdo cuvier]	5.7
574	1839000	(Z85982) hypothetical protein Rv1648	4.3
575	1839000	(Z85982) hypothetical protein Rv1648	4.2
576	1885385	(U87863) SNAP-25 interacting protein hrs-2 [Rattus norvegicus]	3.2
577	1055150	(U40028) weak similarity to glycoprotein H precursor K04H4.3 and C05B5.5; glycine-rich [Caenorhabditis elegans]	2.5
578	4262315	(AF075256) nonstructural polyprotein	1.1
579	1001674	(D64002) hypothetical protein	0.1
580	2224707	(AB002381) KIAA0383 [Homo sapiens]	0.027
581	765157	(S74099) polyprotein I(p1, p2, p10, p15/PR=protease, p19=matrix protein, p27/CA=capsid protein, p12/NC=nuclear capsid protein) [avian myeloblastosis virus AMV, Peptide, 701 aa] [Avian myeloblastosis virus]	4.3
582	1079438	ribonucleoprotein - chicken >gi|550458 gallus]	0.85
585	4584062	(AJ011380) polyprotein [porcine enterovirus 1]	7.6
586	3874412	(Z70034) similarity to 35.1KD hypothetical yeast protein (Swiss Prot accession number P38805); cDNA EST CEMSE65F comes from this gene; cDNA EST EMBL:T01315 comes from this gene; cDNA EST yk452e10.3 comes from this gene; cDNA ES... >gi|3877079|emb|CAA90124| (Z49910) similarity to 35.1KD hypothetical yeast protein (Swiss Prot accession number P38805); cDNA EST CEMSE65F comes from this gene; cDNA EST EMBL:T01315 comes from this gene; cDNA EST yk452e10.3 comes from this gene; cDNA ES...	0.23
587	3123910	(AF039204) methyltransferase/helicase polyprotein	5.7
589	4539761	(AF118391) salivary peroxidase	3.2
590	115317	COLLAGEN ALPHA 1(VIII) CHAIN PRECURSOR (ENDOTHELIAL COLLAGEN) >gi|89957|pir||A34246 collagen alpha 1(VIII) chain precursor - rabbit	0.02
591	4758548	Homer, neuronal immediate early gene, 2 >gi|3834619 (AF093264) homer-2b [Homo sapiens]	2E-18
592	3219961	PUTATIVE HELICASE C17H9.02 IN CHROMOSOME I >gi|2330709|emb|CAB11211.1| (Z98597) putative helicase [Schizosaccharomyces pombe]	7.3

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
594	5459418	(Y18285) mannose binding lectin-associated serine protease-2 [Rattus norvegicus]	3.3
595	4127783	(AJ130871) Bazooka protein [Drosophila melanogaster]	2.3
596	563601	(X78602) hypothetical replicase [Peanut clump virus]	6.6
599	1778663	(D83674) MesP1 [Mus musculus]	2.4
600	404789	(L22756) GTG start codon; ORFA [Bradyrhizobium japonicum]	0.027
603	1743404	(Z83327) transport-associated protein	3
604	1438537	(U49058) rA4 [Rattus norvegicus]	2
605	3929698	(AL031863) 1-evidence=predicted by content; 1-method=genefinder;084; 1-method_score=68.61; 1-evidence_end; 2-evidence=predicted by match; 2-match_accession=AA541052; 2-match_description=LD20837.5prime LD Drosophila melanogaster...	0.83
606	2708329	(AF038564) atrophin-1 interacting protein 4 [Homo sapiens]	5E-14
608	4099321	(U86145) neuraminidase [influenza A virus	5.8
609	3881475	(Z82083) ZK1010.2 [Caenorhabditis elegans]	4E-12
612	220578	(D00570) open reading frame (251 AA) [Mus musculus]	0.056
613	4826716	equilibrative nucleoside transporter 1 >gi|1845345 (U81375) equilibrative nucleoside transporter 1 [Homo sapiens] >gi|3694940 transporter [Homo sapiens]	0.000008
615	2952333	(AF049885) Arg/Abl-interacting protein ArgBP2b [Homo sapiens]	1.9
618	727264	(U18791) hydroxyproline-rich glycoprotein precursor	4.3
619	4507009	solute carrier family 25 member 14 >gi|3851540 (AF078544) brain mitochondrial carrier protein-1 [Homo sapiens] mitochondrial carrier protein-1 (BMCP1)) [Homo sapiens]	8E-36
620	4884108	(AL050089) hypothetical protein [Homo sapiens]	4E-41
622	113083	ACETYLCHOLINE RECEPTOR PROTEIN, BETA CHAIN PRECURSOR >gi|112056|pir||S13873 nicotinic acetylcholine receptor beta chain precursor - rat beta-subunit [Rattus rattus]	3.3
623	3757569	(AL031863) 1-evidence=predicted by content; 1-method=genefinder;084; 1-method_score=66.31; 1-evidence_end [Drosophila melanogaster]	0.65

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
624	422320	protein kinase (EC 2.7.1.37) - Plasmodium falciparum >gi|9878|emb|CAA47704| (X67288) protein kinase [Plasmodium falciparum] >gi|3845284 (AE001419) calcium-dept. protein kinase (C-term. EF hand)	7.5
625	2496852	HYPOTHETICAL 131.5 KD PROTEIN C02F12.7 IN CHROMOSOME X >gi|1109896 (U41545) coded for by C. elegans cDNA yk4b2.5; coded for by C. elegans cDNA CEESN67F; coded for by C. elegans cDNA yk94h12.5; coded for by C. elegans cDNA CEESD93F; coded for by C. elegans cDNA CEESG57F; coded for by C. elegans cDNA yk4b2.3;...	0.0001
629	1361305	IgA-specific metalloendopeptidase (EC 3.4.24.13) homolog SepA precursor - Shigella flexneri flexneri]	4.2
635	3878636	(Z49128) similar to cAMP-dependant protein kinase; cDNA EST EMBL:T00719 comes from this gene; cDNA EST yk465d8.3 comes from this gene; cDNA EST yk465d8.5 comes from this gene; cDNA EST yk492f4.3 comes from this gene; cDNA EST y...	1E-39
636	3649791	(AB012917) serine protease (TLSP) [Homo sapiens]	8E-42
637	868241	(U29488) C56C10.3 gene product [Caenorhabditis elegans]	7E-14
640	2224593	(AB002324) KIAA0326 [Homo sapiens]	4E-25
642	4185794	(AF097025) cysteine desulfurase [Homo sapiens]	1E-64
643	1083755	phosphoprotein phosphatase (EC 3.1.3.16) PPT	2E-15
644	5525067	(AL096844) probable 3-oxacyl-(acyl-carrier-protein) reductase [Streptomyces coelicolor A3(2)]	2E-19
645	4151929	(AF110377) PCAF-associated factor 400 [Homo sapiens]	0.003
646	1174664	RHODOCOXIN >gi|576672 (U17130) ThcC	0.85
648	2702397	(AF038608) Contains similarity to Pfam domain: PF00046 (homeobox), Score=81.5, E-value=5.5e-21, N=1 [Caenorhabditis elegans]	1.6
649	4506891	SET translocation (myeloid leukemia-associated) >gi|346361|pir||A45018 template activating factor-I, splice form beta - human >gi|338039	3E-10
650	4758006	chloride intracellular channel 3 chloride channel CLIC3 [Homo sapiens]	9E-13
651	3702453	(AL021366) cICK0721Q.3 (Kinesin related protein) [Homo sapiens]	5E-38
654	2276316	(Z96810) GLYT-1 LIKE [Homo sapiens]	7E-53
655	3599478	(AF085185) Myosin-IA [Acanthamoeba castellanii]	0.18
657	2735147	(U87971) syntaxin 5 [Rattus norvegicus]	3E-08

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
658	4557651	heat shock transcription factor 4 transcription factor 4 [Homo sapiens]	3E-23
659	4557651	heat shock transcription factor 4 transcription factor 4 [Homo sapiens]	3E-23
661	4505135	midkine (neurite growth-promoting factor 2) >gi|127116|sp|P21741|MK_HUMAN MIDKINE PRECURSOR (NEURITE OUTGROWTH-PROMOTING PROTEIN) (MK) OUTGROWTH-PROMOTING FACTOR 2) >gi|88156|pir||JH0385 midkine precursor - human >gi|35087|emb|CAA38908| sapiens] >gi|182651 (M69148) midkine [Homo sapiens] sapiens] >gi|219929|dbj|BAA01457| (D10604) midkine [Homo sapiens]	2E-15
662	1708021	GLYPICAN-2 PRECURSOR (CEREBROGLYCAN) precursor - rat >gi|440127 (L20468) cerebroglycan cerebroglycan [Rattus norvegicus]	0.00004
663	4504279	H3 histone, family 3A 3B (H3.3B) >gi|122075|sp|P06351|H33_HUMAN HISTONE H3.3 rabbit >gi|90624|pir||S04186 histone H3.3 - mouse histone H3.3 - fruit fly (Drosophila melanogaster) histone H3.3B - chicken >gi|2119023|pir||S61218 histone H3.3 - fruit fly (Drosophila hydei) histone (AA 1-136) [Oryctolagus cuniculus] 136) [Gallus gallus] >gi|161190 (M17876) histone H3 sapiens] >gi|306849 (M11353) H3.3 histone [Homo sapiens] norvegicus] >gi|761716|emb|CAA88778| (Z48950) histone H3.3 [Homo sapiens] >gi|963024|emb|CAA57078| (X81206) histone H3.3 [Drosophila hydei] >gi|963026|emb|CAA57081|	6E-47
664	4557471	coat assembly complex AP1 sigma-1A subunit >gi|231555|sp|Q00382|AP19_MOUSE CLATHRIN COAT ASSEMBLY PROTEIN AP19 (CLATHRIN COAT ASSOCIATED PROTEIN AP19) (GOLGI ADAPTOR AP-1 19 KD ADAPTIN) (HA1 19 KD SUBUNIT) (CLATHRIN ASSEMBLY PROTEIN COMPLEX 1 SMALL CHAIN) >gi|109674|pir||A40535 clathrin-associated protein 19 - mouse >gi|191983 AP-1 clathrin adaptor complex [Homo sapiens]	2E-64
671	410607	drebrin A [chickens, Peptide, 653 aa]	5.4
672	5031433	(AF152396) beta-lactamase-like protein [Mycobacterium fortuitum]	2.3

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
673	1346125	GROWTH/DIFFERENTIATION FACTOR 5 PRECURSOR (GDF-5) (CARTILAGE-DERIVED MORPHOGENETIC PROTEIN 1) (CDMP-1) >gi|1082279|pir||A55452 cartilage-derived morphogenetic protein 1 precursor - human >gi|600732 (U13660) cartilage-derived morphogenetic protein 1 precursor [Homo sapiens]	1.4
674	1730569	PHOSPHATIDYLINOSITOL-4-PHOSPHATE 5-KINASE TYPE III (1-PHOSPHATIDYLINOSITOL-4-PHOSPHATE KINASE) (PIP5KIII) (PTDINS(4)P-5-KINASE C ISOFORM) 1-phosphatidylinositol-4-phosphate 5-kinase (EC 2.7.1.68) isoform C - human >gi|1042034|bbs|169311 isoform C, PtdIns4P 5-kinase isoform C [human, peripheral blood leukocytes, Peptide, 406 aa] [Homo sapiens]	1.2
675	121781	ENDOGLUCANASE A Bacillus sp >gi|142660 (M14781) cellulase (EC 3.2.1.4)	0.8
676	2497556	PUTATIVE MOLLUSCAN INSULIN-RELATED PEPTIDE(S) RECEPTOR PRECURSOR >gi|1020140|emb|CAA59353| peptide(s) [Lymnaea stagnalis]	0.28
677	1330328	(U50595) Rab8-interacting protein [Mus musculus]	0.096
678	5689505	(AB029007) KIAA1084 protein [Homo sapiens]	4E-59
679	3876327	(Z79754) Similarity to some phosphatases and kinases; cDNA EST EMBL:Z14643 comes from this gene	5E-10
680	4589530	(AB023160) KIAA0943 protein [Homo sapiens]	1E-73
681	533891	(L36073) T-cell receptor antigen [Mus musculus] musculus]	0.31
683	137889	HYPOTHETICAL GENE 3 PROTEIN ictalurid herpesvirus 1 (strain auburn 1) >gi|331213 4886-5794 [Ictalurid herpesvirus 1]	1.6
684	421057	hypothetical protein - Escherichia coli plasmid R100 >gi|42624|emb|CAA39338| (X55815) open reading frame [Escherichia coli]	0.26

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
685	3876064	(Z72507) similar to Thrombospondin type 1 domain; cDNA EST EMBL:D34389 comes from this gene; cDNA EST EMBL:D37437 comes from this gene; cDNA EST EMBL:D64645 comes from this gene; cDNA EST EMBL:D65908 comes from this gene; cDNA ... >gi|3877441|emb|CAA96654| EST EMBL:D34389 comes from this gene; cDNA EST EMBL:D37437 comes from this gene; cDNA EST EMBL:D64645 comes from this gene; cDNA EST EMBL:D65908 comes from this gene; cDNA ...	4.5
686	2317934	(U97553) unknown [murine herpesvirus 68]	0.02
689	1377886	(L46815) DNA binding protein Rc [Mus musculus]	4.7
690	627570	phosphorylation regulatory protein HP-10 - human	1.6
691	480485	cytochrome-c oxidase (EC 1.9.3.1) chain III - Herpetomonas mariadeanei mitochondrion (SGC6)	1.2
692	4885599	SKI-like SNON >gi|68923|pir||TVHUSN transforming protein sno-N - human >gi|36511|emb|CAA33289| (X15219) snoN protein (AA 1 - 684) [Homo sapiens]	0.18
693	3927838	(AC005727) unknown protein [Arabidopsis thaliana]	0.000007
694	5104854	(AP000061) 522aa long hypothetical protein [Aeropyrum pernix]	2.6
698	4240173	(AB020649) KIAA0842 protein [Homo sapiens]	4E-39
699	4096674	(U35833) ARX [Mus musculus]	5E-16
700	117525	LYCOPENE CYCLASE	6.1
701	4049765	(AF063866) ORF MSV249 hypotehtical protein [Melanoplus sanguinipes entomopoxvirus]	8.1
702	4240203	(AB020664) KIAA0857 protein [Homo sapiens]	8E-43
703	3874634	(Z68159) Similarity to Yeast DNA repair protein RAD50 (SW:RA50_YEAST); cDNA EST EMBL:D37313 comes from this gene; cDNA EST EMBL:D34285 comes from this gene [Caenorhabditis elegans]	3.4
704	201995	(M64866) thrombospondin [Mus musculus]	2.3
705	118288	LARIAT DEBRANCHING ENZYME debranching enzyme [Saccharomyces cerevisiae] >gi|172552 cerevisiae] >gi|486256|emb|CAA81990| (Z28149) ORF YKL149c [Saccharomyces cerevisiae]	1.9
706	2654898	(AF016121) envelope protein 2 [Hepatitis GB virus C]	1.6
707	5701582	(AF026205) No definition line found [Caenorhabditis elegans]	1.5
708	2327063	(AF001305) protease 1 [Pneumocystis carinii f. sp. carinii]	0.18
709	422761	basonuclin - human	0.17

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
710	71403	collagen alpha 1(I) chain - rat (fragments)	0.007
714	5105952	(AP000064) 101aa long hypothetical protein [Aeropyrum pernix]	9.7
717	1168479	APX-1 PROTEIN PRECURSOR >gi|473871	6.3
718	4929024	(AF139719) unknown [Klebsiella oxytoca]	0.49
719	417509	GENOME POLYPROTEIN [CONTAINS: NUCLEAR INCLUSION PROTEIN B (NI-B) (NIB) (RNA-DIRECTED RNA POLYMERASE) ; COAT PROTEIN (CP)] >gi|320062|pir||GNVSMB genome polyprotein - maize dwarf mosaic virus (strain B) protein [Maize dwarf mosaic virus]	0.51
720	1351287	TROPOMYOSIN 1, FUSION PROTEIN 34 exons [Drosophila melanogaster]	0.11
721	3005601	(AF052433) katanin p80 subunit [Strongylocentrotus purpuratus]	2E-16
722	1360769	DNA helicase-primase complex component - equine herpesvirus 2 >gi|695213 (U20824) DNA helicase-primase complex component [Equine herpesvirus 2]	2
723	5689525	(AB029017) KIAA1094 protein [Homo sapiens]	1E-28
724	3876982	(Z81536) F40D4.11 [Caenorhabditis elegans]	7.7
725	85437	neurofilament triplet M protein - Pacific electric ray (fragment)	0.011
727	2978255	(AB007407) myeloid zinc finger protein-2	0.42
730	4091914	(AF064823) NADH dehydrogenase subunit 5 [Sarcophyton glaucum]	3.5
731	2905612	(AF041845) gp130p1 [Xenopus laevis]	2.7
732	2905612	(AF041845) gp130p1 [Xenopus laevis]	2.7
733	2887499	(AC004143) R29893_1 [Homo sapiens]	2.7
738	4587223	(AB021660) carbonic anhydrase VB [Homo sapiens]	3.3
739	4886445	(AL050269) hypothetical protein [Homo sapiens]	1E-14
740	5102812	(AL079308) putative serine/threonine protein kinase [Streptomyces coelicolor]	1.1
741	4539386	(AL035526) extensin-like protein	0.14
742	2496576	HYPOTHETICAL 32.5 KD PROTEIN Y4AD	7.8
743	3882265	(AB018315) KIAA0772 protein [Homo sapiens]	2E-13
744	3875383	(Z54284) D2085.2 [Caenorhabditis elegans]	0.000003
745	3116122	(AL023287) hypothetical protein	3.8
749	3043716	(AB011168) KIAA0596 protein [Homo sapiens]	0.28
750	3168604	(U88154) proline and glutamic acid rich nuclear protein isoform [Homo sapiens]	0.035
752	2429324	(AF015116) interleukin 6 receptor [Sus scrofa]	1.3

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
753	808667	(M15972) The first atg start codon is the AA before the stop codon in ORF1; putative [Human herpesvirus 4]	1.1
754	164840	(M10412) carbonic anhydrase I [Oryctolagus cuniculus]	0.88
755	2133726	synapse-associated protein sap47-1 - fruit fly (Drosophila melanogaster) >gi|929571|emb|CAA56416| melanogaster]	7E-22
756	136797	HYPOTHETICAL PROTEIN UL7 cytomegalovirus (strain AD169) >gi|59612|emb|CAA35440|	7.4
757	3881372	(Z81141) ZC47.14 [Caenorhabditis elegans]	3.3
759	3327160	(AB014573) KIAA0673 protein [Homo sapiens]	3E-57
761	1651655	(D90899) PNIL34 [Synechocystis sp.]	6.3
762	94228	env polyprotein - feline immunodeficiency virus >gi|59290|emb|CAA40321| (X57002) ENV [Feline immunodeficiency virus] >gi|228554|prf||1805419A envelope glycoprotein [Feline immunodeficiency virus]	8.2
763	5102812	(AL079308) putative serine/threonine protein kinase [Streptomyces coelicolor]	0.94
764	5454104	transcriptional adaptor 2 complex) >gi|3335555 (AF069733) ADA3-like protein [Homo sapiens]	2E-54
766	1280102	(U55370) coded for by C. elegans cDNA CEESD82F; coded for by C. elegans cDNA CEESD82R [Caenorhabditis elegans]	4.5
768	3875720	(Z50857) M79.2 [Caenorhabditis elegans] elegans]	4.9
769	4502247	armadillo repeat protein sapiens]	4.8
770	3860231	(AF102887) thrombospondin-4 [Mus musculus]	3.6
771	539999	receptor tyrosine kinase c-kit - rat tyrosine kinase [Rattus rattus]	2.9
773	3550638	(AJ006986) repeating unit transporter	6.5
775	5105066	(AP000061) 124aa long hypothetical protein [Aeropyrum pernix]	7.7
776	2622679	(AE000916) tungsten formylmethanofuran dehydrogenase, subunit A [Methanobacterium thermoautotrophicum]	4.8
777	1086650	(U41015) Similar to serine/threonine protein kinase.	0.4
778	1363837	probable finger protein YOL054w - yeast cerevisiae] >gi|1419863|emb|CAA99062| (Z74796) ORF YOL054w [Saccharomyces cerevisiae]	0.14
779	500858	(D14168) 50kDa lectin [Bombyx mori]	0.0000004
780	4680659	(AF132944) CGI-10 protein [Homo sapiens]	4E-67
785	4586844	(AB015633) type II membrane protein	3E-09
786	117800	CYANAMIDE HYDRATASE (UREA HYDRO-LYASE) >gi|102020|pir||A39365 cyanamide hydratase verrucaria]	1.8

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
787	5689513	(AB029011) KIAA1088 protein [Homo sapiens]	3E-09
790	2829815	CARBON STARVATION PROTEIN A HOMOLOG tuberculosis]	6.9
791	2224671	(AB002363) KIAA0365 [Homo sapiens]	6.6
792	3834629	(AF094519) diaphanous-related formin; p134 mDia2 [Mus musculus]	1E-23
793	1572522	(U67194) upf54.8 [Enterobacter aerogenes]	3.3
794	3876099	(Z75536) similar to dynein heavy chain; cDNA EST EMBL:D27549 comes from this gene; cDNA EST EMBL:D34859 comes from this gene [Caenorhabditis elegans]	0.00001
797	3319990	(Y17267) ubiquitin-conjugating enzyme [Mus musculus]	4E-40
799	473513	(M17619) NADH dehydrogenase subunit COIII [Asterina pectinifera]	2.8
800	1460094	(L35031) Orf159; Predicted integral membrane protein with 4 transmembrane sequences (method of Klein, Kanehisa, DeLisi in PCGene). One nucleotide overlap with upstream orf.; putative [Escherichia coli]	1.6
801	4455041	(AF116463) unknown [Streptomyces lincolnensis]	0.081
802	1174467	STAR PROTEIN >gi|472815 (L31886) amino acid feature: potential transmembrane domain, aa 280 .. 302 [Drosophila melanogaster]	0.053
805	5031861	candidate tumor suppressor involved in B-CLL >gi|3133092|emb|CAA12136| (AJ224819) tumor suppressor [Homo sapiens]	3E-15
807	1947168	(AF000299) No definition line found [Caenorhabditis elegans]	0.24
808	5442104	(AF126467) Gag protein [Simian retrovirus SRV-2]	7.8
809	1684987	(U20649) NADH dehydrogenase subunit [Cymbidium atropurpureum]	6
810	1709814	PHOTOSYSTEM I P700 CHLOROPHYLL A APOPROTEIN A1 >gi|2147916|pir||S73205 photosystem I p700 chlorophyll A apoprotein A1 - Porphyra purpurea chloroplast >gi|1276750 (U38804) Photosystem I p700 chlorophyll A apoprotein A1 [Porphyra purpurea]	0.74
811	400280	MELANOCYTE STIMULATING HORMONE RECEPTOR (MSH-R) (MELANOTROPIN RECEPTOR) (MELANOCORTIN-1 RECEPTOR) (MC1-R) >gi|110690|pir||S25581 melanocyte-stimulating hormone receptor - mouse hormone receptor [Mus musculus]	10

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
812	3581887	(AL031540) internalin- related, Leucine rich repeat containing protein [Schizosaccharomyces pombe]	3.6
813	2462671	(Z98529) putative RNA-binding protein	0.002
814	2492678	ACTIN-LIKE PROTEIN ARP8 YOR141c - yeast (Saccharomyces cerevisiae)	1E-15
815	3879157	(Z77668) predicted using Genefinder; Similarity to Mouse selenium-binding protein	6
816	3668141	(AJ007398) PBK1 protein [Homo sapiens]	8E-57
817	3875131	(Z70750) similar to vanadate resistance protein transmembranous domains [Caenorhabditis elegans]	5E-33
819	2494509	PUTATIVE FORKHEAD-RELATED TRANSCRIPTION FACTOR F26A1.2 >gi|860690 (U27312) weak similarity to FKH-5 Protein (Mouse, PIR:S36074) and D. melanogaster fork head domain protein FD4	9.3
820	547625	TRANSCRIPTION FACTOR HES-1 (HAIRY AND ENHANCER OF SPLIT 1) >gi|539928|pir||A53336 transcription factor HES-1 - mouse factor HES-1 [Mus musculus]	0.69
821	113670	!!!! ALU CLASS E WARNING ENTRY !!!!	0.23
822	3329124	(AE001337) S/T Protein Kinase [Chlamydia trachomatis]	2.5
823	4982299	(AE001811) conserved hypothetical protein [Thermotoga maritima]	0.09
824	4530509	(AF124748) putative RNA-binding protein	3
825	75198	glycoprotein precursor - Uukuniemi virus	0.59
826	127477	MEMBRANE-ASSOCIATED ATPASE GAMMA CHAIN (SUL-ATPASE GAMMA) (ATP SYNTHASE, SUBUNIT D) 3.6.1.34) gamma chain - Sulfolobus acidocaldarius	0.2
827	3915729	HYPERPLASTIC DISCS PROTEIN (HYD PROTEIN) >gi|2673887 (L14644) hyperplastic discs protein	0.22
836	4493951	(AL034556) predicted using hexExon; MAL3P5.16 (PFC0650w), Hypothetical protein, len: 1282 aa	0.69
837	4884027	(AJ011655) hypothetical protein	2.5
838	3873691	(Z46240) similar to endothelial actin-binding protein repeats; cDNA EST EMBL:D27639 comes from this gene; cDNA EST EMBL:D33624 comes from this gene; cDNA EST EMBL:D33507 comes from this gene; cDNA EST EMBL:D36493 comes from thi...	9.7

Tabl 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
839	4507425	teratocarcinoma-derived growth factor 1 >gi|117473|sp|P13385|CRI1_HUMAN TERATOCARCINOMA-DERIVED GROWTH FACTOR 1 (EPIDERMAL GROWTH FACTOR-LIKE CRIPTO PROTEIN CR1) (CRIPTO-1 GROWTH FACTOR) (CRGF) >gi|87385|pir||A30362 epidermal growth factor-like protein CR3 - human >gi|30221|emb|CAA32467| factor 1 [Homo sapiens]	0.49
840	2271518	(AF009829) unknown [Mycobacterium bovis]	0.082
841	4093025	(AF070836) NADH dehydrogenase subunit 4	1.5
842	2662603	(AF036699) No definition line found	6.4
843	3880368	(Z95621) similar to collagen; cDNA EST EMBL:D69870 comes from this gene; cDNA EST EMBL:D70498 comes from this gene [Caenorhabditis elegans] cDNA EST EMBL:D69870 comes from this gene; cDNA EST EMBL:D70498 comes from this gene [Caenorhabditis elegans]	3.3
844	731490	HYPOTHETICAL 73.0 KD PROTEIN IN SEB1-PTC2 INTERGENIC REGION >gi|1077682|pir||S50591 hypothetical protein YER088c - yeast (Saccharomyces cerevisiae) >gi|603326 (U18839) Yer088cp [Saccharomyces cerevisiae]	1.7
852	4929605	(AF151826) CGI-68 protein [Homo sapiens]	1E-61
855	4996369	(AB021267) polyprotein [Arabidopsis thaliana]	2.2
856	4100563	(AF001175) ribonuclease P protein subunit p14 [Homo sapiens]	2E-10
863	458692	(U06631) homologous to mouse gene PC326:GenBank Accession Number M95564 [Homo sapiens]	6
864	123518	RNA POLYMERASE PRINCIPAL SIGMA FACTOR HRDA >gi|80717|pir||S17929 transcription initiation factor sigma hrdA - Streptomyces coelicolor subunit (AA 1-396) [Streptomyces coelicolor]	3.1
865	126296	LINE-1 REVERSE TRANSCRIPTASE HOMOLOG protein [Nycticebus coucang]	0.0001
866	4972730	(AF132172) unknown [Drosophila melanogaster]	3E-19
867	128169	HIGH-MOLECULAR WEIGHT COBALT-CONTAINING NITRILE HYDRATASE SUBUNIT ALPHA hydratase (EC 4.2.1.84) - Rhodococcus rhodochrous rhodochrous]	5
868	2809262	(AC002560) F21B7.31 [Arabidopsis thaliana]	1.9

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
869	4758374	four and a half LIM domains 3 LIM-protein FHL3 [Homo sapiens]	0.94
871	400784	ACIDIC PHOSPHOPROTEIN PRECURSOR (50 KD ANTIGEN) >gi|477254|pir||A48455 acidic phosphoprotein PcEMA1q - Plasmodium chabaudi >gi|160603 (M95789) acidic phosphoprotein [Plasmodium chabaudi]	3.3
872	2495704	HYPOTHETICAL PROTEIN KIAA0129 product is novel. [Homo sapiens]	0.0002
874	4514345	(AB013374) Ykok [Bacillus halodurans]	3.7
875	5453794	nucleolar protein (KKE/D repeat)	1E-18
877	2650666	(AE001107) A. fulgidus predicted coding region AF2427	0.076
878	1572836	(U70858) similar to family 18 of glycosyl hydrolases	2.7
879	400853	VITAMIN-K DEPENDENT PROTEIN C PRECURSOR (AUTOPROTHROMBIN IIA) (ANTICOAGULANT PROTEIN C) >gi|112216|pir||S18994 protein C (activated) (EC 3.4.21.69) precursor - rat >gi|56963|emb|CAA45617|	4.7
880	113668	!!!! ALU CLASS C WARNING ENTRY !!!!	4.9
881	5262748	(AJ133120) Proline rich synapse associated protein 2 [Rattus norvegicus]	8.6
883	1352130	CYTOCHROME C OXIDASE POLYPEPTIDE I subunit I [Chondrus crispus]	9.9
886	547708	TRANSCRIPTIONAL REGULATOR IE63 human herpesvirus 1 (strain HFEM)	0.31
887	4758216	dishevelled 2 (homologous to Drosophila dsh) >gi|2291008|gb|AAB65243.1| (AF006012) dishevelled 2 [Homo sapiens]	0.051
888	2291257	(AF016430) contains similarity to a BR-C/TTK domain	0.016
889	2911858	(AF047659) No definition line found [Caenorhabditis elegans]	3E-26
890	1932813	(U88065) dsRNA adenosine deaminase [Xenopus laevis]	3.4
893	728836	!!!! ALU SUBFAMILY SP WARNING ENTRY	0.39
895	2580578	(AF000996) ubiquitous TPR motif, Y isoform [Homo sapiens]	0.008
896	1869831	(Z86099) UL9 [human herpesvirus 2]	9.9
897	2632151	(Y14493) PHOX2b protein [Mus musculus] musculus]	2.6
898	1079078	GCR 101 protein - fruit fly (Drosophila melanogaster) >gi|510509|emb|CAA50795| (X71975) put. homologue to S.cerevisiae GAR1 gene [Drosophila melanogaster]	0.0000004
900	418745	NADH dehydrogenase (ubiquinone) (EC 1.6.5.3) chain 4 - Crithidia oncopelti mitochondrion (SGC6) subunit 4 [Crithidia oncopelti]	4.6

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)			
SEQ ID	ACC'N	DESCRIP.	P VALUE
901	3874002	(Z36719) cDNA EST yk208g3.5 comes from this gene [Caenorhabditis elegans]	0.41
903	731630	HYPOTHETICAL 50.6 KD PROTEIN IN RPL14B-GPA1 INTERGENIC REGION >gi|626594|pir||S46802 hypothetical protein YHR004c - yeast (Saccharomyces cerevisiae) >gi|500822 (U10555) Yhr004cp [Saccharomyces cerevisiae]	0.42
904	5081459	(AF124435) p55-related MAGUK protein DLG3 [Danio rerio]	6E-27
906	2497012	HYPOTHETICAL 26.6 KD PROTEIN T19C3.4 IN CHROMOSOME III >gi|849238 (U28412) similar to polyposis locus protein 1 (SP:DP1_HUMAN, Q00765)	3E-34
907	113671	!!!! ALU CLASS F WARNING ENTRY !!!!	0.0002
909	5410448	(AF135183) Recq helicase 5	2E-52
910	1407655	(U58884) SH3P7 [Mus musculus]	0.000002
912	2981631	(AB012223) ORF2 [Canis familiaris]	0.000002
913	2289030	(U53564) N-terminal region of the protein [Mus musculus]	3.6
914	4567179	(AC007228) BC37295_1 [Homo sapiens]	0.000002
915	2842531	(AB004291) gamma-subunit of enolase	4.4
916	1177607	(X92485) pva1 [Plasmodium vivax]	0.33
918	3638957	(AC004877) sco-spondin-mucin-like; similar to P98167 uncertain [Homo sapiens]	4.3
919	5032163	transcription factor 17	1E-23
920	3873738	(Z37983) contains five copies of the EGF-like aspartic acid and asparagine hydroxylation site comes from this gene; cDNA EST EMBL:D27753 comes from this gene; cDNA EST ...	4.6
921	4503561	epithelial membrane protein 2 PROTEIN-2 (EMP-2) (XMP PROTEIN) >gi|2474096 (U52100) XMP	4E-08
922	4506051	primase, polypeptide 1 (49kD) SUBUNIT (DNA PRIMASE 49 KD SUBUNIT) (P49) p48) [Homo sapiens]	0.064
923	2738451	(AF003534) putative tyrosine protein kinase [Chilo iridescent virus]	5E-08
925	543222	glutamine (Q)-rich factor 1, QRF-1 - mouse factor 1, QRF-1 [mice, B-cell leukemia, BCL1, Peptide Partial, 84 aa]	2E-44
927	961466	(D63777) adhesive plaque matrix protein	4.9

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
928	121404	ANAEROBIC GLYCEROL-3-PHOSPHATE DEHYDROGENASE SUBUNIT B (G-3-P DEHYDROGENASE) subunit B [Escherichia coli] >gi|1788575 (AE000314) sn-glycerol-3-phosphate dehydrogenase (anaerobic), membrane anchor subunit [Escherichia coli] dehydrogenase (EC 1.1.99.5) (anaerobic) chain B	0.49
930	5640009	(AF167316) zinc finger protein ZFP109 [Mus musculus]	1.2
931	4678836	(AL049701) hypothetical protein [Homo sapiens]	8E-43
932	4758556	U4/U6-associated RNA splicing factor >gi|2708307 (AF016370) U4/U6 small nuclear ribonucleoprotein hPrp3 [Homo sapiens]	6E-09
933	729079	CARBOXY-CIS,CIS-MUCONATE CYCLASE 3-carboxy-cis,cis-muconate cyclase [Neurospora crassa]	6.4
934	5080758	(AC007842) BC331191_1 [Homo sapiens]	2E-08
936	4506009	protein phosphatase 1, regulatory subunit 10 >gi|2117159|emb|CAA73697| (Y13247) FB19 protein [Homo sapiens]	8E-32
937	726403	(U23175) similar to anion exchange protein [Caenorhabditis elegans]	1E-25
938	726403	(U23175) similar to anion exchange protein [Caenorhabditis elegans]	3E-26
940	2500573	RIBONUCLEASE S-4 PRECURSOR (STYLAR GLYCOPROTEIN 4) (S4-RNASE) >gi|1405426|emb|CAA65320|	3.2
941	2291171	(AF016420) No definition line found [Caenorhabditis elegans]	8.7
942	3914191	UDP-N-ACETYLGLUCOSAMINE--PEPTIDE N-ACETYLGLUCOSAMINYLTRANSFERASE 110 KD SUBUNIT (O-GLCNAC TRANSFERASE P110 SUBUNIT) >gi|1931579 (U76557) O-GlcNAc transferase, p110 subunit [Rattus norvegicus]	1E-17
943	549341	MAJOR CAPSID PROTEIN L1 type 34 >gi|396996|emb|CAA52560| (X74476) late protein	8.1
944	4680673	(AF132951) CGI-17 protein [Homo sapiens]	3E-65
945	4191610	(AF117107) IGF-II mRNA-binding protein 2 [Homo sapiens]	1E-51
947	4589512	(AB023151) KIAA0934 protein [Homo sapiens]	5E-46
948	2193870	(D84391) reverse transcriptase [Mus musculus]	2E-09
949	3046871	(AB003753) high sulfur protein B2E [Rattus norvegicus]	5.7

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
950	140130	HYPOTHETICAL 85.7 KD PROTEIN (ORF C-792) >gi|76733|pir||S03232 hypothetical protein C-792	8
951	2494897	PERIODIC TRYPTOPHAN PROTEIN 1 HOMOLOG (KERATINOCYTE PROTEIN IEF SSP 9502) >gi|177765 sapiens]	2E-08
954	2465332	(U92819) unnamed HERV-H protein [Homo sapiens]	8E-14
955	4200446	(AF102777) FYVE finger-containing phosphoinositide kinase [Mus musculus]	8E-15
956	3859560	(AF098668) acyl-protein thioesterase [Homo sapiens]	2E-61
958	4008551	(AL034490) pseudouridylate synthase	6.7
959	4508041	zinc finger protein 91 (HPF7, HTF10) >gi|549839|sp|Q05481|ZN91_HUMAN ZINC FINGER PROTEIN 91 (ZINC FINGER PROTEIN HTF10) (HPF7)	4E-19
961	1085397	taurine transporter - human >gi|559853	2E-14
962	134211	SERUM RESPONSE FACTOR ACCESSORY PROTEIN 1B (SAP-1B) (ETS-DOMAIN PROTEIN ELK-4) protein-1 form b, SAP-1b - human >gi|338035 (M85164) SAP-1B protein [Homo sapiens]	0.038
963	961444	(D63876) KIAA0154 gene product is related to mouse gamma adaptin. [Homo sapiens]	1E-20
964	4758488	general transcription factor IIF, polypeptide 2 (30kD subunit) FACTOR IIF, BETA SUBUNIT (TFIIF-BETA) (TRANSCRIPTION INITIATION FACTOR RAP30) >gi|105393|pir||S18677 ATP-dependent RNA helicase RAP30/74 chain RAP30 - human RAP30 [Homo sapiens]	0.00009
971	5262560	(AL080125) hypothetical protein [Homo sapiens]	2E-41
972	1707274	(U80931) strong similarity to class-III of pyridoxal-phoshate-dependent aminotransferases	7E-31
973	3810839	(AL032684) conserved hypothetical zinc-finger protein [Schizosaccharomyces pombe]	7E-12
975	4887229	(AF150755) microtubule-actin crosslinking factor [Mus musculus]	5E-22
976	1675222	(U67203) ACF7 neural isoform 1 [Mus musculus]	4E-22
977	987050	(X65335) lacZ [Cloning vector pSV-beta-Galactosidase Control]	3E-15
978	5052075	(AF074331) PAPS synthetase-2	8E-63
979	3983573	(AC004839) similar to IgD B-cell receptor-associated protein (BAP); similar to S46997 (PID:g1085495) [Homo sapiens]	8E-58

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
980	3108057	(AF060539) channel interacting PDZ domain protein [Mus musculus]	1E-63
981	1755049	(U55042) myosin X [Bos taurus]	5E-55
982	1783123	(AB000170) endopeptidase 24.16 type M3 endopeptidase 24.16 type M3 [Sus scrofa] type M3 [Sus scrofa] >gi|1783130|dbj|BAA19065| type M3 [Sus scrofa] >gi|1783134|dbj|BAA19067| type M3 [Sus scrofa]	2E-58
983	1098627	(U31079) 47 kDa heat shock protein [Danio rerio]	4.5
984	3649791	(AB012917) serine protease (TLSP) [Homo sapiens]	6E-76
985	1177607	(X92485) pva1 [Plasmodium vivax]	0.13
988	4106444	(AF085692) multidrug resistance-associated protein 3B	0.97
989	3757569	(AL031863) 1-evidence=predicted by content; 1-method=genefinder;084; 1-method_score=66.31; 1-evidence_end [Drosophila melanogaster]	2.5
990	115317	COLLAGEN ALPHA 1(VIII) CHAIN PRECURSOR (ENDOTHELIAL COLLAGEN) >gi|89957|pir||A34246 collagen alpha 1(VIII) chain precursor - rabbit	0.29
991	1743404	(Z83327) transport-associated protein	6.2
992	3878636	(Z49128) similar to cAMP-dependant protein kinase; cDNA EST EMBL:T00719 comes from this gene; cDNA EST yk465d8.3 comes from this gene; cDNA EST yk465d8.5 comes from this gene; cDNA EST yk492f4.3 comes from this gene; cDNA EST y...	3E-53
993	728837	!!!! ALU SUBFAMILY SQ WARNING ENTRY	4
994	1098627	(U31079) 47 kDa heat shock protein [Danio rerio]	4.5
995	3649791	(AB012917) serine protease (TLSP) [Homo sapiens]	6E-76
996	115317	COLLAGEN ALPHA 1(VIII) CHAIN PRECURSOR (ENDOTHELIAL COLLAGEN) >gi|89957|pir||A34246 collagen alpha 1(VIII) chain precursor - rabbit	0.29
997	113668	!!!! ALU CLASS C WARNING ENTRY !!!!	0.012
998	3722229	(AF058790) SynGAP-b [Rattus norvegicus]	3.4
999	3876327	(Z79754) Similarity to some phosphatases and kinases; cDNA EST EMBL:Z14643 comes from this gene	6E-33
1000	4886288	(AL050300) putative protein [Arabidopsis thaliana]	0.22
1001	4589530	(AB023160) KIAA0943 protein [Homo sapiens]	1E-73
1003	4063766	(D87895) chitinase [Emericella nidulans]	0.016
1004	4505727	peroxisomal biogenesis factor 3 PROTEIN PEX3 (PEROXIN-3) >gi|3336882|emb|CAA04879| sapiens] >gi|4218426|emb|CAA08904| (AJ009866) Pex3p	e-126
1005	2832671	(AL021712) hypothetical protein	1.7

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
1006	1175815	HYPOTHETICAL PROTEIN HI1476 Haemophilus influenzae (strain Rd KW20) >gi|1574317 influenzae Rd]	7.1
1007	4927208	(AF133913) ARL-6 interacting protein-6 [Mus musculus]	4E-28
1008	2327063	(AF001305) protease 1 [Pneumocystis carinii f. sp. carinii]	0.18
1009	2384956	(AF022985) No definition line found [Caenorhabditis elegans]	3E-19
1010	3877495	(Z48583) cDNA EST EMBL:T00483 comes from this gene; cDNA EST EMBL:D64526 comes from this gene; cDNA EST EMBL:D65147 comes from this gene; cDNA EST EMBL:D68484 comes from this gene; cDNA EST EMBL:D67548 comes from this gene; c... >gi|3879229|emb|CAA88749| EST EMBL:D64526 comes from this gene; cDNA EST EMBL:D65147 comes from this gene; cDNA EST EMBL:D68484 comes from this gene; cDNA EST EMBL:D67548 comes from this gene; cDN...	6.7
1011	3355308	(AJ009695) wall-associated kinase 4	0.74
1012	297922	(X66052) D-lactate dehydrogenase	2
1013	4691726	(AF124490) ARF GTPase-activating protein GIT1 [Homo sapiens]	4E-68
1014	2384956	(AF022985) No definition line found [Caenorhabditis elegans]	3E-19
1016	1469880	(D63483) The KIAA0149 gene product is related to Notch3. [Homo sapiens]	0.58
1017	5678967	(AL109630) BACR7A4.ai [Drosophila melanogaster]	1.4
1018	3023956	VEGETATIBLE INCOMPATIBILITY PROTEIN HET-E-1 >gi|607003 (L28125) beta transducin-like protein	5E-28
1019	3882321	(AB018343) KIAA0800 protein [Homo sapiens]	e-105
1020	1655907	(U65891) protein tyrosine phosphatase CRYP-2 [Gallus gallus]	2.5
1021	3540219	(D87686) KIAA0017 protein [Homo sapiens]	8E-70
1022	1352368	ENTEROPEPTIDASE PRECURSOR enterokinase [Bos taurus]	7.7
1023	4506701	ribosomal protein S23 S23 >gi|543449|pir||S41955 ribosomal protein S23 - rat protein [Homo sapiens] >gi|453281|emb|CAA54584| (X77398) ribosomal protein S23 [Rattus norvegicus]	9E-15
1024	5059323	(AF151522) hairy and enhancer of split related-1 [Homo sapiens]	0.31
1025	3329139	(AE001339) ABC Transporter Membrane Protein [Chlamydia trachomatis]	1.2

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
1027	2133726	synapse-associated protein sap47-1 - fruit fly (Drosophila melanogaster) >gi|929571|emb|CAA56416| melanogaster]	8E-25
1028	4507009	solute carrier family 25 member 14 >gi|3851540 (AF078544) brain mitochondrial carrier protein-1 [Homo sapiens] >gi|4678718|emb|CAB41251.1| protein-1 (BMCP1)) [Homo sapiens]	e-121
1029	2662336	(D55702) ORF2 [Bombyx mori]	8.2
1030	5454104	transcriptional adaptor 2 complex) >gi|3335555 (AF069733) ADA3-like protein [Homo sapiens]	e-108
1031	1363044	mucin (clone pGM7-1) - bovine repeats, clone pGBM7-1} [cattle, gall-bladder, Peptide Partial, 600 aa] [Bos taurus]	0.21
1032	3874427	(Z78416) predicted using Genefinder; Similarity to S.pombe RAD18 gene (TR:E198069); cDNA EST CEESX52R comes from this gene; cDNA EST EMBL:D32785 comes from this gene; cDNA EST EMBL:D35528 comes from this gene; cDNA EST EMBL:D37...	6E-09
1033	3287732	GLYCYL-GLYCINE ENDOPEPTIDASE ALE-1 PRECURSOR >gi|1890068|dbj|BAA13069| (D86328) ALE-1	1.7
1034	2143767	glycoprotein - rat >gi|986943 (L08134) glycoprotein [Rattus norvegicus] norvegicus]	0.057
1035	4929167	(AF142440) BC1 [Indian mungbean yellow mosaic geminivirus]	0.63
1036	2224593	(AB002324) KIAA0326 [Homo sapiens]	2E-41
1037	3820909	(AJ010642) Dof protein [Drosophila melanogaster]	1.9
1038	4586844	(AB015633) type II membrane protein	3E-09
1039	3287688	(AC003979) Contains similarity to ycf37 gene product gb|1001425 from Synechocystis sp. genome gb|D63999. ESTs gb|T43026, gb|R64902, gb|Z18169 and gb|N37374 come from this gene. [Arabidopsis thaliana]	0.036
1040	4557651	heat shock transcription factor 4 transcription factor 4 [Homo sapiens]	3E-23
1041	4557651	heat shock transcription factor 4 transcription factor 4 [Homo sapiens]	3E-23

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
1042	4557471	coat assembly complex AP1 sigma-1A subunit >gi|231555|sp|Q00382|AP19_MOUSE CLATHRIN COAT ASSEMBLY PROTEIN AP19 (CLATHRIN COAT ASSOCIATED PROTEIN AP19) (GOLGI ADAPTOR AP-1 19 KD ADAPTIN) (HA1 19 KD SUBUNIT) (CLATHRIN ASSEMBLY PROTEIN COMPLEX 1 SMALL CHAIN) >gi|109674|pir||A40535 clathrin-associated protein 19 - mouse >gi|191983 AP-1 clathrin adaptor complex [Homo sapiens]	4E-73
1043	3581887	(AL031540) internalin- related, Leucine rich repeat containing protein [Schizosaccharomyces pombe]	3.6
1044	2492678	ACTIN-LIKE PROTEIN ARP8 YOR141c - yeast (Saccharomyces cerevisiae)	6E-21
1052	2495704	HYPOTHETICAL PROTEIN KIAA0129 product is novel. [Homo sapiens]	0.0002
1054	4680703	(AF132966) CGI-32 protein [Homo sapiens]	1E-91
1055	1078718	reverse transcriptase - Trypanosoma cruzi transcriptase [Trypanosoma cruzi]	1.1
1056	728835	!!!! ALU SUBFAMILY SC WARNING ENTRY	0.16
1057	1932813	(U88065) dsRNA adenosine deaminase [Xenopus laevis]	5.4
1058	1363325	RNA helicase HEL117 - rat >gi|897915 (U25746) RNA helicase [Rattus norvegicus]	3E-91
1059	631772	TEG-261 protein - mouse	2E-47
1062	2506774	KERATIN, TYPE II CYTOSKELETAL 8	2E-42
1063	4406551	(AF131739) Unknown [Homo sapiens]	2E-82
1064	4678836	(AL049701) hypothetical protein [Homo sapiens]	3E-13
1065	4567179	(AC007228) BC37295_1 [Homo sapiens]	0.000005
1066	3953593	(AB020542) Zinc finger protein s11-6 [Mus musculus]	1E-32
1068	3170180	(AF039690) antigen NY-CO-8 [Homo sapiens]	0.26
1069	4678836	(AL049701) hypothetical protein [Homo sapiens]	3E-13
1070	2558501	(D63850) hepatoma-derived growth factor	3E-24
1071	3327220	(AB014603) KIAA0703 protein [Homo sapiens]	5E-53
1072	5453601	cartilage-associated protein cartilage-associated protein (CASP) [Homo sapiens]	e-125
1073	3237304	(U91561) pyridoxine 5'-phosphate oxidase [Rattus norvegicus]	3E-56
1074	4508041	zinc finger protein 91 (HPF7, HTF10) >gi|549839|sp|Q05481|ZN91_HUMAN ZINC FINGER PROTEIN 91 (ZINC FINGER PROTEIN HTF10) (HPF7)	1E-21

Table 2B Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

SEQ ID	ACC'N	DESCRIP.	P VALUE
1075	961444	(D63876) KIAA0154 gene product is related to mouse gamma adaptin. [Homo sapiens]	1E-20
1077	1707274	(U80931) strong similarity to class-III of pyridoxal-phoshate-dependent aminotransferases	7E-31
1078	1546779	(U28789) PACT [Mus musculus]	0
1079	5052075	(AF074331) PAPS synthetase-2	8E-63

Table 3

SEQ ID NO:	Profilename	Start	Stop	Direction
97	Kazal	25	243	for
227	helicase_C	212	389	for
242	EFhand	275	310	for
450	SH3	44	226	for
473	Zincfing_C2H2	211	273	for
505	WD_domain	80	178	for
512	Zincfing_C2H2	147	209	for
523	PDZ	168	395	for
527	ras	18	395	for
545	ANK	311	393	for
547	Ets_Nterm	7	237	for
606	WW_domain	120	209	for
635	protkinase	47	400	for
635	mkk	41	394	for
636	trypsin	147	381	for
640	Zincfing_C2H2	122	184	for
693	Zincfing_CCHC	135	185	for
721	WD_domain	18	116	for
805	Zincfing_C3HC4	263	406	for
918	BZIP	51	224	for
919	Zincfing_C2H2	125	187	for
925	FKH	9	230	for
971	Zincfing_C2H2	202	264	for
973	Zincfing_CCHC	262	309	for
980	PDZ	241	468	for
992	mkk	0	708	for
992	protkinase	121	711	for
995	trypsin	202	760	for
984	trypsin	202	760	for
1018	WD_domain	18	116	for
1028	pr55	24	1293	for
1035	ATPases	74	616	for
1036	Zincfing_C2H2	122	184	for
1053	14_3_3	63	619	for
1058	helicase_C	212	448	for
1058	ATPases	59	442	for
1063	Zincfing_C2H2	211	273	for
1066	Zincfing_C2H2	125	187	for
1072	ATPases	808	1284	for
1078	protkinase	309	1022	rev
1078	neur_chan	12	508	rev
1078	Zincfing_CCHC	262	309	for
1078	Zincfing_C3HC4	557	679	for

Table 13			
ES55	**ES56**	**ES57**	**ES58**
M00004170C:H06	M00004036B:C11	M00004288D:E07	M00023298B:G07
M00004170D:C06	M00004064B:G03	M00004318D:D07	M00026819B:E02
M00004171D:H10	M00004067C:E05	M00004356C:D02	M00026914C:H10
M00004174B:B12	M00004099C:F04	M00004391C:F12	M00027023B:H12
M00004175D:G10	M00004103A:E06	M00004386C:C03	M00027085A:G10
M00004176A:E07	M00004128B:H11	M00004414D:C11	M00027248D:D01
M00001352D:A09	M00004167A:H04	M00004422C:A01	M00027546B:A11
M00001345C:B10	M00004158C:B01	M00004427D:H04	M00023299B:A01
M00001382D:F03	M00004165B:E03	M00004502B:G05	M00026857A:F02
M00001419A:E01	M00004181A:B05	M00004495D:A05	M00026858C:H05
M00001437D:A12	M00003993C:G11	M00005364C:A02	M00026861A:B05
M00001441D:G02	M00004046C:A04	M00005375B:H03	M00026846C:B01
M00001601D:A03	M00004034A:G03	M00005420C:E10	M00027131A:H02
M00001677B:G01	M00004036C:E10	M00005413B:B02	M00027396A:F07
M00001678A:B10	M00004043C:A06	M00005438D:A08	M00023301B:C01
M00001675C:F05	M00004067C:C10	M00005453B:B06	M00023321B:F06
M00001360D:C12	M00004068A:A03	M00005446B:D10	M00023401C:D12
M00001389C:E01	M00004069A:E04	M00005493D:H12	M00026941C:E11
M00001390C:H05	M00004071C:B06	M00005476D:A11	M00027067A:B02
M00001399B:C04	M00004127C:C08	M00005482A:D08	M00027036B:D07
M00001507A:H06	M00004157C:E06	M00005485C:F09	M00027329A:H04
M00003747C:G12	M00004165D:H12	M00005563C:D05	M00027740C:C05
M00001358B:F12	M00003995B:C06	M00005569B:E04	M00023340A:A10
M00001360B:F09	M00004090A:B11	M00005621B:C09	M00026942C:A06
M00001392A:F02	M00004084C:F05	M00005628D:A10	M00027066A:A04
M00001397D:G04	M00004087A:H06	M00005629B:G06	M00027072C:A11
M00001463C:E12	M00004110A:G03	M00004866C:H08	M00027028A:B06
M00001531B:A03	M00004117D:F06	M00004872C:G03	M00023282B:H09
M00001507D:F09	M00004150A:B09	M00005358B:D10	M00023295B:C03
M00001513B:F05	M00004140C:D04	M00005385D:B08	M00026811A:H01
M00001514B:C02	M00004175D:D05	M00005392C:B03	M00026850B:F07
M00001576C:E03	M00004176A:H05	M00005395C:C11	M00026913D:G11
M00003756D:B09	M00004170C:A12	M00005396A:C01	M00026936D:D01
M00003907C:D02	M00004237B:G01	M00005435B:F01	M00027083C:F06
M00003926A:D01	M00004253A:E02	M00005464B:B08	M00027152D:H06
M00003928D:A04	M00003997D:G03	M00005505B:D10	M00027209D:B09
M00003935D:E04	M00003998C:D04	M00005509D:G05	M00027339D:E10
M00003985B:F06	M00004027C:E06	M00005614A:B07	M00027282D:G01
M00004063B:B12	M00004059D:A09	M00005721C:A12	M00023287A:D08
M00004101A:C12	M00004087B:D05	M00005705D:G09	M00026928A:B06
M00004104C:F06	M00004114C:B09	M00005709D:H05	M00027028B:C12
M00004107A:E02	M00004140B:C02	M00004859D:D01	M00027115B:G04
M00004108B:D04	M00004149C:D11	M00005342D:E04	M00027096B:A01
M00003856A:H10	M00004168D:F05	M00005363D:C05	M00027154B:D05

Table 13			
ES55	**ES56**	**ES57**	**ES58**
M00003908C:C04	M00004176B:H09	M00005353C:H01	M00027164A:A09
M00003895C:F05	M00004173A:D03	M00005386C:G01	M00027218C:D06
M00003939B:C02	M00004209B:G01	M00005388B:B02	M00023343B:C08
M00003997A:C08	M00004253D:D04	M00005396C:H04	M00026871C:F12
M00004066D:C02	M00004275A:H07	M00005434A:F11	M00026882A:E07
M00004105C:C05	M00004269C:B10	M00005434C:E02	M00027067B:E09
M00003788B:C08	M00004298A:H09	M00005473C:F02	M00027062C:C04
M00003788C:C05	M00004347A:F10	M00005459B:A01	M00027131C:E07
M00003835B:C05	M00004337A:A07	M00005469A:D10	M00027137D:F05
M00003820B:G04	M00004372A:A08	M00005505D:H08	M00027204B:A08
M00003888C:G08	M00004406D:E11	M00005509B:E10	M00027188A:D12
M00003977D:H04	M00004449B:B05	M00005616B:E11	M00027190B:F06
M00004029D:H03	M00004507A:F11	M00005589B:H12	M00027193A:F07
M00004034A:A05	M00004276A:C06	M00005721D:B03	M00022362D:G11
M00004140D:E03	M00004270C:H05	M00005698A:H12	M00007947B:F07
M00003775C:C01	M00004343A:G07	M00006613C:C02	M00007948B:B07
M00003776B:F08	M00004344B:C06	M00006617A:A06	M00008003B:F09
M00003839D:C03	M00004373D:G10	M00006584D:D01	M00008054C:C03
M00003818C:D02	M00004368A:G11	M00006594B:D05	M00008075D:B01
M00003820C:E08	M00004371B:A05	M00006600D:G07	M00022074A:F05
M00003822A:D02	M00004403A:A02	M00006631D:G09	M00007943C:B02
M00003877C:G01	M00004445D:A04	M00006635A:C01	M00008002B:F09
M00003880A:G10	M00004447A:A10	M00006726D:H10	M00021653C:B06
M00003919D:F01	M00004603D:D09	M00006874D:E01	M00021851D:H06
M00003960D:E09	M00004326D:D06	M00006882C:D03	M00022015D:C11
M00004081A:E11	M00004323B:G12	M00006925B:B02	M00022018B:E09
M00004085B:D12	M00004350A:C04	M00006946B:C08	M00022095C:F03
M00004142C:A06	M00004357A:B10	M00006949B:C07	M00007996C:B11
M00004135D:D01	M00004360B:B08	M00007026A:A03	M00007977B:C11
M00004198B:G08	M00004385D:D06	M00006712A:F01	M00008088D:B01
M00004185B:H03	M00004414D:A01	M00006727A:H12	M00021676B:B12
M00004187A:B05	M00004415A:A01	M00006815D:D11	M00021972A:C10
M00004251B:H12	M00004423A:B05	M00006805D:H12	M00022099C:A10
M00004232D:G11	M00004423C:F03	M00006934B:B11	M00022106D:B06
M00004240A:D03	M00004426B:H06	M00007019B:G01	M00007978B:C04
M00004285C:B06	M00004504C:G07	M00007038D:D01	M00008053D:E09
M00004292A:C08	M00004466A:E04	M00007041C:C05	M00021669B:G02
M00004335A:G05	M00004498D:A11	M00006630A:E05	M00022118A:D08
M00004240C:A06	M00004292A:F03	M00006623C:G07	M00022251A:F07
M00004249A:C09	M00004280D:D10	M00006694D:G06	M00022235D:F07
M00004335D:D03	M00004286D:D02	M00006668D:B10	M00022240C:B03
M00004378A:H10	M00004870D:E05	M00006688A:F09	M00022406C:G03
M00004381A:E10	M00004871C:C04	M00006745B:C05	M00022459C:G05
M00004444C:H11	M00004872A:D07	M00006846A:B03	M00022627B:D01

Table 13			
ES55	**ES56**	**ES57**	**ES58**
M00004225A:E03	M00005395D:D11	M00006823A:H06	M00022184D:F07
M00004284A:C09	M00005395D:B12	M00006925A:B09	M00022177D:G02
M00004264B:F03	M00005412D:G07	M00006894D:A07	M00022460C:E12
M00004404C:B03	M00005413D:G12	M00006895D:A02	M00022627A:A02
M00004410A:F06	M00005513A:H01	M00006991B:E05	M00022144D:D09
M00004412A:G05	M00005515D:G02	M00006994A:C12	M00022203B:A05
M00001340C:A08	M00005607A:C08	M00007046D:E10	M00022214C:C11
M00001340C:D09	M00005366D:E12	M00006577A:B01	M00022252C:A04
M00001395D:B04	M00005618C:H11	M00006630A:E09	M00022420B:C08
M00001466C:H11	M00005708C:D11	M00006619A:G11	M00022640B:G10
M00001528D:B12	M00005810B:C07	M00006704A:C11	M00022641C:H03
M00001517C:A10	M00006795C:B12	M00022127C:E01	M00022652B:G06
M00001561A:G10	M00006755C:C03	M00022128A:C05	M00022216C:H02
M00001565C:F06	M00006756D:G07	M00022176D:F05	M00022199A:F09
M00001569A:H01	M00006779D:F03	M00022214A:H05	M00022214A:D01
M00001341A:H10	M00004821D:C03	M00022220B:B06	M00022273A:B03
M00001375C:C11	M00005358A:H03	M00022278C:E04	M00022256D:G11
M00001397C:F01	M00005480C:A04	M00022282A:A11	M00022261C:D06
M00001431A:F03	M00005481C:H05	M00022260C:H07	M00022490B:G12
M00001457D:E08	M00005490B:B02	M00022263A:C01	M00022648D:G11
M00001505C:C10	M00005820A:H11	M00022377A:E02	M00022709A:G02
M00001615A:D01	M00006621B:B06	M00022399C:B02	M00022701C:A05
M00001618C:E01	M00006752C:D04	M00022056C:D12	M00022826A:C08
M00001358C:D09	M00006757D:H04	M00022087A:D01	M00022963A:E07
M00001360B:B01	M00005000A:H05	M00022088B:E05	M00022904D:D04
M00001391C:B05	M00005296D:G03	M00022090D:B03	M00023095C:A09
M00001389B:B12	M00005378B:B04	M00022094A:A09	M00022684C:C12
M00001485A:C04	M00005461C:D11	M00022096B:D10	M00022765B:E03
M00001559D:E02	M00005464D:D07	M00022176A:F02	M00022898C:H07
M00001545D:F12	M00005657B:F11	M00022217B:E03	M00022902B:F10
M00001549C:F10	M00006596D:H02	M00022259A:D04	M00023003A:H01
M00001579C:E07	M00005826B:F10	M00022381B:C12	M00022768A:A10
M00001630A:E08	M00006577B:F01	M00022399D:A07	M00022834A:H02
M00001386B:E01	M00006582A:F12	M00022401C:G07	M00023002A:C02
M00001389A:F03	M00006664A:C05	M00022407D:G07	M00023003C:C10
M00001418C:F06	M00006678C:B07	M00022417B:C01	M00023012A:C06
M00001454D:H09	M00006840A:A12	M00022435C:C05	M00007973D:B03
M00001442D:D09	M00005020B:D10	M00022471D:A05	M00007939A:F06
M00001450D:H12	M00005296B:H07	M00022464D:F12	M00007941D:D07
M00001479D:B10	M00005403A:D12	M00022469A:A05	M00007948D:F08
M00001598C:F02	M00005376B:E08	M00022500B:D01	M00008012D:H04
M00001594A:H01	M00005378C:B12	M00022506D:B03	M00008014D:A11
M00001657D:D07	M00005397A:G08	M00022542A:B06	M00008048C:A08
M00003772C:F12	M00005449D:D04	M00022527D:A09	M00008099A:C12

Table 13			
ES55	**ES56**	**ES57**	**ES58**
M00003844D:B02	M00005465A:A07	M00022568B:D03	M00021668D:G09
M00003845B:A04	M00005648C:C11	M00022561D:E06	M00021861C:B08
M00003845C:F08	M00006595C:B08	M00022687C:C11	M00021980A:F03
M00003848A:E08	M00006816D:D08	M00022695D:B02	M00007931A:B07
M00003880C:D06	M00006835D:C08	M00022425A:F11	M00007948C:G01
M00001647D:A02	M00006914C:D07	M00022434D:B06	M00007969B:E10
M00001655C:F07	M00007177A:G07	M00022460D:C07	M00008012B:C05
M00003804D:F12	M00006920B:H07	M00022510A:B09	M00008012D:E07
M00003884C:G09	M00007161C:D12	M00022501D:A09	M00008014C:H01
M00003916D:A10	M00006968D:H02	M00022541D:G06	M00008016C:E06
M00003943B:C12	M00006936C:G11	M00022527B:H05	M00008052C:G11
M00003935A:C04	M00006945D:A07	M00022538D:B02	M00008054C:E07
M00003937D:F09	M00007047C:H04	M00022559D:F10	M00008093C:G08
M00001683B:F12	M00007065D:A03	M00022569D:H03	M00021614A:C09
M00001669B:H04	M00007079D:H01	M00022601A:A09	M00008094D:C02
M00003762D:C02	M00006968A:H05	M00022604A:F06	M00021667C:G10
M00003788D:E06	M00007078B:H04	M00022684B:F11	M00021674A:B07
M00003824A:B11	M00007186A:A12	M00022702A:D10	M00021846B:F05
M00003865B:D10	M00004852B:H08	M00022691A:G01	M00021847B:A09
M00003870C:H03	M00005382A:G09	M00022696A:H03	M00021963C:H04
M00003901B:C02	M00005418C:B09	M00022444B:C04	M00007985C:G07
M00003893A:D03	M00005420C:E03	M00022447A:H06	M00008001D:F11
M00003931A:G01	M00005450C:G09	M00022488C:H02	M00007992A:G04
M00003973A:D09	M00005444D:D01	M00022522B:A05	M00008000D:B06
M00001660A:B10	M00005494C:F08	M00022513C:G04	M00008001A:G11
M00003761C:C05	M00005479C:A05	M00022517C:B01	M00008044C:A05
M00003829C:G07	M00005486A:F07	M00022546B:F12	M00008085B:G01
M00003833D:F11	M00005538C:H11	M00022591C:F03	M00008082B:C05
M00003879D:A09	M00005648C:E10	M00022617B:A01	M00008083A:H11
M00003880B:B08	M00005621A:B05	M00022681D:H10	M00021624B:E11
M00003861D:G10	M00004847D:G01	M00022659B:C01	M00021689A:G05
M00003876C:G11	M00005342B:G01	M00022664C:G10	M00021865B:F06
M00003877C:C11	M00005305A:H01	M00022711B:A05	M00021879B:C11
M00003902C:D02	M00026906B:G03	M00022704A:H08	M00021958A:A03
M00003933A:B04	M00026872A:C10	M00022449D:B05	M00021945A:B04
M00003923D:A03	M00026964C:H02	M00022548A:F02	M00021981D:A11
M00003989D:A02	M00026982C:D08	M00022590D:E08	M00007987A:D10
M00003991A:D05	M00027069D:F02	M00022622A:E08	M00007998C:B04
M00004030C:E05	M00027042D:E02	M00022655A:F09	M00008001B:E11
M00004048A:E10	M00027056B:H07	M00022664A:E04	M00008045A:B05
M00006680D:A01	M00027137C:A03	M00022720A:C01	M00008023A:B03
M00006688C:C12	M00027184D:H02	M00022722D:C07	M00008027D:H09
M00006740A:A06	M00027189C:D04	M00022746D:D05	M00008044B:F07
M00006757A:C09	M00027196A:A10	M00022772A:A06	M00008089C:B08

Table 13			
ES55	**ES56**	**ES57**	**ES58**
M00006859D:E11	M00027357D:A02	M00022813C:B09	M00021620D:B06
M00006917B:C05	M00027369A:B03	M00022853D:C05	M00021624B:D03
M00006919A:H12	M00027439B:A09	M00022843A:D02	M00021628C:B09
M00006993B:F02	M00027393D:F01	M00022844C:A01	M00021680D:H08
M00007093C:C11	M00027557D:B06	M00022968D:G06	M00021687C:A04
M00007047D:C02	M00027502C:H02	M00023023B:A05	M00021696C:E02
M00007064B:E09	M00027507C:C06	M00022716A:C01	M00021698A:H03
M00007121A:G04	M00027529B:B11	M00022725D:G05	M00021864C:C07
M00007107C:D02	M00027438D:A03	M00022817D:B09	M00021958A:A04
M00007178D:A10	M00027388A:G05	M00022848D:H09	M00021949D:A05
M00007156D:E11	M00027396C:B06	M00022884D:A07	M00021951B:A01
M00007172D:H03	M00027551C:B07	M00022983A:H04	M00022001B:H10
M00007175D:G02	M00027518B:B07	M00023034B:B10	M00022001D:E06
M00007121D:A11	M00027528A:G03	M00023038D:D04	M00022071D:C08
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M00007116A:C08	M00027484A:G03	M00022737D:B02	M00022138C:B07
M00007152A:A10	M00027752B:E05	M00022801A:G04	M00022152A:G05
M00007179B:H04		M00022838B:E05	M00022158C:C08
M00007157B:B04		M00022856A:B09	M00022192B:H07
M00007167C:B10		M00022902C:F11	M00022233C:D11
M00007175B:B11		M00022893D:C06	M00022252A:C01
M00007177B:C02		M00022922D:G06	M00022370A:G07
M00007141A:G08		M00022986B:C02	M00022300A:A05
M00007196D:D02		M00023002D:C12	M00022386D:C04
M00007145C:B05		M00023096C:A03	M00022072D:E12
M00007126D:H01		M00023097A:C03	M00022102D:A10
M00007140C:G12		M00022743C:G06	M00022207C:C01
M00007200A:B12		M00022736B:B03	M00022249C:G09
M00007203C:E06		M00022737B:F12	M00022383C:F05
		M00022831C:F11	M00022384B:E06
		M00022836C:A07	M00022067A:B03
		M00022854D:C04	M00022056B:G12
		M00022860A:A07	M00022084B:C03
		M00022861C:B04	M00022087D:F12
		M00023096A:F03	
		M00023096D:B11	
		M00023097C:D10	

Table 14

ES59	ES60	ES61	ES62
M00001418A:A02	M00001477A:G02	M00004450A:G07	M00005515B:B08
M00003877C:A08	M00003853C:A09	M00004353D:C06	M00005385B:A10
M00003977C:D01	M00001694B:H12	M00004406A:H12	M00005516D:F12
M00004295A:C02	M00001664D:E02	M00004048C:C02	M00005822D:C05
M00001383C:C04	M00003847B:H01	M00004170B:G04	M00004841C:H03
M00001500A:A02	M00001631D:G08	M00004108C:D07	M00005810B:G02
M00003880B:D03	M00004498D:F02	M00004125B:A02	M00007107A:H08
M00003803B:G12	M00001563A:F04	M00004109A:B07	M00004825A:G12
M00003819D:B02	M00001558D:E02	M00004123B:G05	M00005327C:G08
M00004178B:F07	M00004278C:H11	M00004152A:F03	M00005390C:E05

ES63	ES64	ES65	ES66
M00005520A:H11	M00006790D:F10	M00027175D:A05	M00026949A:F04
M00006814D:D09	M00006627C:C02	M00026910C:C05	M00023432D:F09
M00006918D:G08	M00027462D:A12	M00027280D:H01	M00027178B:E04
M00007197D:D12	M00026972A:F04	M00023289D:E06	M00027225B:D03
M00005497C:G08	M00027592D:C05	M00023373A:D01	M00023340B:B07
M00007109D:G01	M00026945B:C10	M00027231A:D01	M00027283C:H12
M00005377C:F07	M00027231C:D08	M00023321A:F07	M00027085C:H12
M00006813B:E04	M00027083D:F06	M00027266C:G12	M00027234C:B05
M00005825A:A10	M00027142A:C01	M00023398D:F10	M00023390A:C04
M00005416B:A01	M00027607A:A09	M00027603C:E02	M00026810A:H04

ES67	ES68	ES69	ES70
M00023340B:H12	M00027642C:D11	M00022714B:D04	M00022709A:C01
M00027237C:D04	M00027202B:B09	M00022838A:H05	M00022413B:D07
M00026809C:D10	M00027459A:G12	M00022392C:H06	M00022467C:H07
M00027386D:C02	M00027250A:C04	M00022363C:D03	M00022561B:B09
M00027343B:H05	M00027499B:G02	M00022205A:C02	M00022214C:E09
M00027356A:H02	M00027053C:B06	M00022717C:F05	M00022697A:C08
M00027363D:A08	M00027598C:D06	M00008015B:D08	M00022682A:F10
M00027364D:E08	M00006989C:B01	M00021625B:G07	M00021841A:E11
M00027618A:B08	M00006837B:H12	M00008100D:C08	M00021691B:E04
M00027628D:D08	M00007202A:A09	M00022669D:G07	M00022477C:C07

Table 14

ES71	ES72	ES73	ES74
M00022134D:D12	M00008028D:B01	M00022513C:E10	M00023363C:A04
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M00022903D:H02	M00008097C:E04	M00022544C:D08	M00008023C:A06
M00022915C:C09	M00008082B:H10	M00022785C:B10	M00022077D:A12
M00007965C:B02	M00008006A:H02	M00022525C:E09	M00023284B:G06
M00022368C:C11	M00022167B:H02	M00022641D:F08	M00023369D:C05
M00007937C:E08	M00022509D:A12	M00022923A:A09	M00023413D:F04
M00021852C:D12	M00022169A:E11		M00026905A:G11
M00008000D:G11	M00022184D:H07		M00027169D:H06
M00021908B:F03	M00022441B:A06		M00005434D:H02

We Claim:

1. A library of polynucleotides, the library comprising the sequence information of at least one of SEQ ID NOS:1-1079.

2. The library of claim 1, wherein the library is provided on a nucleic acid array.

3. The library of claim 1, wherein the library is provided in a computer-readable format.

4. The library of claim 1, wherein the library comprises a polynucleotide corresponding to a gene differentially expressed in cell of high metastatic potential relative to a control cell, wherein the control cell is a normal cell or a cell of low metastatic potential, and wherein the sequence is selected from the group consisting of SEQ ID NOS:350, 571, 781, 778, 756, 779, 691, 686, 916, and 969.

5. The library of claim 1, wherein the library comprises a polynucleotide corresponding to a gene differentially expressed in a cancer cell of low metastatic potential relative to a control cell, wherein the control cell is a normal cell or a cell of high metastatic potential, and wherein the sequence is selected from the group consisting of SEQ ID NOS:34, 57, 103, 110, 113, 189, 214, 359, 521, 532, 533, 536, 547, 549, 554, 555, 558, 561, 562, 572, 582, 584, 587, 589, 590, 591, 592, 599, 603, 607, 609, 623, 624, 635, 636, 637, 641, 646, 647, 648, 650, 653, 654, 656, 657, and 661.

6. An isolated polynucleotide comprising a nucleotide sequence having at least 90% sequence identity to an identifying sequence of SEQ ID NOS:1-1079 or a degenerate variant or fragment thereof.

7. A recombinant host cell containing the polynucleotide of claim 6.

8. An isolated polypeptide encoded by the polynucleotide of claim 6.

9. An antibody that specifically binds a polypeptide of claim 8.

10. A vector comprising the polynucleotide of claim 6.

11. A polynucleotide comprising the nucleotide sequence of an insert contained in a clone deposited as ATCC accession number xx, or xx.

12. A method of detecting differentially expressed genes correlated with a cancerous state of a mammalian cell, the method comprising the step of:

detecting at least one differentially expressed gene product in a test sample derived from a cell suspected of being cancerous, where the gene product is encoded by a gene corresponding to a sequence of at least one of SEQ ID NOS: 34, 57, 100, 103, 110, 113, 189, 209, 214, 316, 350, 359, 370, 521, 532, 533, 536, 547, 549, 554, 555, 558, 561, 562, 571, 572, 582, 584, 587, 589, 590, 591, 592, 599, 603, 607, 609, 623, 624, 635, 636, 637, 641, 645,646, 647, 648, 650, 653, 654, 656, 657, 661, 781, 778, 756, 779, 691, 686, 854, 916, and 969;

wherein detection of the differentially expressed gene product is correlated with a cancerous state of the cell from which the test sample was derived.

SEQUENCE LISTING

<110> Williams, Lewis T.
Escobedo, Jaime
Innis, Michael A.
Garcia, Pablo Dominiguez
Sudduth-Klinger, Julie
Reinhard, Christoph
Giese, Klaus
Randazzo, Filippo
Kennedy, Giulia C.
Pot, David
Kassam, Altaf
Lamson, George
Drmanac, Radoje
Crkvenjakov, Radomir
Dickson, Mark
Drmanac, Snezana
Labat, Ivan
Leshkowitz, Dena
Kita, David
Garcia, Veronica
Jones, Lee William
Stache-Crain, Birgit

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<140> Unassigned
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aaaagtgcct gtgtgaagtc acttttgctg gaaaactgca gcttgggagc tttctttgta 240
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ctattatgtt atagaactga tatgttacgt ttgttttcat tgatgcgtct gtacttggct 240
tcagagagca aaacaaggcc ctgtgagtca ctgggagcca gattttggat caaaataaat 300
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gtttatttct gtaaccaggt acggggcgaa ggcgtggaaa atatcccaga ccgactcaga 360
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catt 424

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gaggtggagg ttgcagtgag ccgagatcat gctgctgcac tccagcctgg gtgacagagt 180
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<210> 5
<211> 390
<212> DNA
<213> Homo sapiens

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ttttttaaaa tgaaagaatc caaccttttt ttactctgac ctgcgagagt gcagagggtc 300
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<212> DNA
<213> Homo sapiens

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agaccctgtc tcaaaaaaag gaaaaaaaag ctcaaaaagt tctgtgttgc ctttctcttc 300
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<213> Homo sapiens

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acagggttcc tgtttcctag taactgcttc tactcgagcc ttcctcagga aagcccacaa 240
tagcaattga gagtaaaatg atttgaaaac gtgggtgtgc tgctgctggg actccaccct 300
cagtaacgat caggcattgt tctgtcttcc ttgctcaggg ggggcacact tcaagagatt 360
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gactaaagac ccatntggag gcaaatatta agttgccagg actgctttca cttcagggtg 180

attgaaggnc acatattgaa gtacctagaa tgccagaaag tgttntnttg cccanaaaac 240
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atactttgtg ccnccttgga agactntgaa acncgnnttc cntgggattt tgctgtaaat 360
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ttacaggcaa taactttatg tctcccctcc cttatctctg ggcaaacctt gtttattctc 180
tactaacttg gttgtaatct gttcatcaaa gtagaccctt gaatttgtta ttctccaggc 240
tgctgggaca cgttggagtg gccttagaag gctgcaaaat ggactgatgg tttctgcctt 300
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ggtggttgac tgtatccatg tggccatcaa ggcaccacat gctgaagacc tctcctatgt 240
gaaccgaata ggcctgcatt ctataaactg ctgatggtgt gcgacattag agggacacta 300
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<400> 12

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<210> 19
<211> 415
<212> DNA
<213> Homo sapiens

<400> 19
ggacagtctg agccccagga tctccgtgcc cctgattccg gactctgtac agcaatacat 60
gagttcttcc tctagaaaac caagccttct ctggctgtta gaaaggaggc taaagaggcc 120
gagaacccaa ggtgttgtgt ttgaatcccc tgaggaaagt gctgatcaat ctcaagctga 180
cagagactca aagaaggcca agaaagagaa actttctccc tggcctgcgg accttgaaaa 240
gcagccttcc caccatcctt tgcggatcaa gaagcagttg ttcccagatc tctatagcaa 300
agaatggaac aaggcagtgc ctttctgtga gtctcaaaag agggtgacta tgttgacggc 360

ccactgggat tttcagtgca cttaaggtct acagatgagg agtttatttc tcaaa 415

<210> 20
<211> 415
<212> DNA
<213> Homo sapiens

<400> 20
ccttgtcttg cctccaaaag actggacctc cttttcttct tcagtggtaa aaggagtttc 60
ttggtgccac cgtgggctct gggcagagac tgtgccttcc tccctttgt gtctgagtcg 120
ccccgcatgc tttggcgcag ggagtttggg ccagagcgat ctccagcccc ttccagttca 180
ctggctctgt gataaggttc ctggggattt tgtgtcatgt tgcttggaaa ccagatggaa 240
ataggccaat taccattgaa gtggggcggc tcctgaatgt tccaggacca ggagatttga 300
gctaggcttg ggaccttctc tttgctgggt ctctccctgg tcctgcctcc taagaaagag 360
aaaacaagca aatactctgt ctacattcag atacgatgcc ttacatgaga agtaa 415

<210> 21
<211> 400
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(400)
<223> n = A,T,C or G

<400> 21
aaagttgcta aatctggccg tcctaaacta gatggcagac tgagaaatgt gactcccctc 60
cccagtacct tgttttctgt gtccttgtag ccgtggtcct tcagcatatc tctgtgctgc 120
agacaacaca ccttcctgat ggaggtgtcc ggtaagtttc caagcagtgc cgtctctgca 180
gtaccttgac cgccaggagt tggtggttag gaactggctc ctgaagtagg gtgtaaacta 240
gaggactgtt ccagggactc ctacccctac gcctagctct gagcaataac tagtgttcgt 300
gtgtgtctag ggaagaggga gaataaccag tgggttagcc catgggttca aanaccccaa 360
ccctcaagtg gcacctctgt gaggctgctt cctgnaactg 400

<210> 22
<211> 403
<212> DNA
<213> Homo sapiens

<400> 22
gctgcttttg cagtgggtgc cacctgccac tgtgcagccc tactcggctc agcccttctc 60
ctcagctgtg agcactgtcc tcaggagagt cacagggctt gacacctgac tctgagctgg 120
aacagtaggg gcagggagaa gacaggtctc aagaaaaggt ttttaagaag tttcatcccc 180
agttaagcag agtccatcct tgacttaaat ccccttattac agcacaactg tgtatctaat 240
cttacgattt aggagaatgt tacctaggac attttgatgt gttaagttga agaaaggtaa 300
ctcgtgtatg aaccccgagc catttccctg ttgtcctgag gaggaactcc aggcctccca 360
tcgtgtgccc taaggcctcc tgcgtcctgg agccctgcct ccc 403

<210> 23
<211> 403
<212> DNA
<213> Homo sapiens

<400> 23
ccaggctggc tgtttttctt ggtgaatgtt ctccaggctg gttatttttc ttggtgaatg 60

taatgtactg tctttttaga gtaagttact aagctggtta ctaaatcagg aatattttag 120
ttataaaact ttagattttt aagaatattg gccaggcacg gtggctcaca cctgtaatcc 180
cagcacgttg ggaggccaag gcgggtggat cacctgagat cgggagttca agaccagcct 240
ggccaacatg gtgaaacccc gtctctacaa aagaaaaaaa tacaaaaatt agctgggtgt 300
tgtggtgtat gcctgtaatc ccaactattt gggtggctga ggcacgagaa tcgcttgagc 360
ttggagggcg gaggttgcag tgagctgaga tcgtgccact gca 403

<210> 24
<211> 396
<212> DNA
<213> Homo sapiens

<400> 24
cttgtatata gaagctattt ctcatctcag ctgtaaatcc catctgggct ggactatatt 60
agattacttt ggtagcctaa ccaatgctaa aatttattaa tgtcttcata atagcttgct 120
acttggtaat gtttatactt gttgtaaaaa gcatgtgaca aggccaggca cggtggctca 180
tgcctgtaat cccagcactc tgggaggccg aggcgggtgg atcacctgag gtcaggagtt 240
cgagaccagt ctggccaata tggtgaaacc ccgtctctac taaaaataca aaaattagct 300
gggtggtagg gtgggcgcct gtaatcccag ctacttggga ggctgaggca ggagaatcgc 360
ttgaaccccg gagggggagt ttgcagtgag ctgaaa 396

<210> 25
<211> 406
<212> DNA
<213> Homo sapiens

<400> 25
cccagcagtg tttactgagg acctggtttt ctagaacagg tgtgtcctgt cctcttccat 60
gttccctggg ggctggtcag ctccaagttg tgggtggcag agctgtgttt cagcatgaac 120
tgactagaga cccatctgga ggcaaatatt aagttgccag gactgctttc acttcagggt 180
gattgaagga cacatattga agtacctaga atgccagaaa gtgttctatt gcccaaaaaa 240
caaatcagaa aagcctattc ttttttgcaa cgctgttaat gattagtgga gttctgaaat 300
tactttgtgc cacttggaag tactgtgaaa ccgcattcac tgggattttg ctgtaattca 360
catccgctgg actgaagttt accttgatgt tagctataag aaatag 406

<210> 26
<211> 392
<212> DNA
<213> Homo sapiens

<400> 26
gaagaaactc agagattctc tgtaacttgc ccagcattac cccactgata gattctgggg 60
attgaatttg gatccaggtc ttttcaactc caagtttcac cacgtgaact tgagttggca 120
taagaatcac ttgaggcttg gttataatat aggttctggg ccctccccag acctgctaac 180
tccatcacca gggaaggggc cctgaaatct gatgactggt atgatcaggc aagtttaaga 240
cattatactc tactgtatag cctcctttgg tttaaggtcc tgattctcaa ggctttccat 300
ttgtaacacc ttagaggtat aggcattgat gccaaaaata gtaaagaagc aaatcatgta 360
cagttgacct ttgaacaacc tgggggttta gg 392

<210> 27
<211> 402
<212> DNA
<213> Homo sapiens

<400> 27
ggcggagaaa gcagaggagg accggcgggc caagctttcc tagcctgaca gcagccattt 60

cggaacgtac gtcccagccc tctttagcta cttagcgcct ctgggcccga gaacacctgc 120
tccttggctc agtctggcgc caccggcatc acggaactgt acttcccaga gacgtcacac 180
cgggagactt ccgattcccg ctcttgagat tggactctca cgtgcaggag ccagtcctcg 240
ctgggctcta gcgggcttct gatggaggag ctactcctct gggaggacag aaattagcag 300
cagcctctgt caccatccaa agattacaac ccatgaaacc attgaatttg tgccttgtat 360
cagaaagcaa aggagaatga aaaagcacag ctaacattgc tt 402

<210> 28
<211> 389
<212> DNA
<213> Homo sapiens

<400> 28
catggccaat ttttttatta gaaaatatgt gaccaaaaga ttctatagag taaaaaatca 60
aagcaaaaca aaaaccacaa aaagacccct gtactataga aaatgtaaag ttggctgaac 120
agatagggtc ttgaaatttc aggaaacata taatctcacg gttcttaaag attgtcactg 180
tagacatctg agtaattaat tttcagttag taacaggctt atagaaactt tgggattatt 240
tacaaatggt ttaggaaaga ataaggtata gtaaaagtaa tatcctggag aattctgggc 300
cacctaccca ccataatcaa ttcagctgta ctactgaagt attgtaaaat ctgatctcta 360
gaggaaaata cagtattcta ccttacgtt 389

<210> 29
<211> 395
<212> DNA
<213> Homo sapiens

<400> 29
gaggatattt aggggtacag aatcccacgg tgtgagttgc agaagggccc gagcatctgt 60
ctggtggcac cttctcagga ggaacctcac tgaccggcat gggtgaaccg ttcagctagg 120
gtcttgggga aagtcaggca tctctggagc ctccgatgtt gaggataggg taagagcagc 180
attgttctct ggggcccttt ttccttagta acacacactc acccggagcc agttgtgcct 240
tcttgcaaac aaacagcttt caagaagagt taataaatta atcttctggg aaaaagaatc 300
tgctctgcgc cagcaagacc tctagcagcc agggccagag acttgggcaa tgtagtcaaa 360
acacacgctg atcactgtgt gttactgctg acgag 395

<210> 30
<211> 402
<212> DNA
<213> Homo sapiens

<400> 30
cctcagcaag ggcgcggtct ggtactcgtg cgtcttttat cgcctcagtt tccctccgcc 60
gactagcgcg cggggcccgg ttctccatcg cgcgcacggg agcctagcgc aatgaggcgg 120
gcagcactgc ggctttgtgc cttgggcaaa gggcagctta ctcctggaag aggactgact 180
caaggacccc agaaccccaa gaaacaggga atcttccaca ttcatgaagt tcgagataag 240
ttgcgggaga tagtaggagc atccacaaac tggagagacc atgtgaaggc aatggaagaa 300
aggaaattac ttcatagttt cttggctaaa tcacaggatg gactgcctcc taggagaatg 360
aaggacagtt atattgaagt tctcttgctt tgggcagtga gc 402

<210> 31
<211> 405
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature

<222> (1)...(405)
<223> n = A,T,C or G

<400> 31
agacagtctt taaagcaggg gagcaggtta atggataatt tcttgatcag agaaatgagt 60
ggttctacat cagagttgtt gataaaagaa aataaaagca aattcagccc tcaaaaagag 120
gcgagccctg ctgcaaagac caaagagaca cgttctgtag aagagatcgc tccagatccc 180
tcagaggcta agcgtcctga gccaccctcg acatccactt tgaaacaagt tactaaagtg 240
gattgtcctg tttgcggggt taacattcca gaaagtcaca ttaataagca tttagacagc 300
tgtttatcac gcgaagagaa gaaggaaagc ctcanaagtt ctgttcacaa aaggaagccg 360
ctgnccanaa ctgtatataa tttgctctct gacgtgatta aaaga 405

<210> 32
<211> 391
<212> DNA
<213> Homo sapiens

<400> 32
ctacaacaag aaatgcaacg cttgtcactt cagcaggaga tgttaatgca gatgagagag 60
caacaatctt gggtgatttc acctccacaa ccctctccac agaaacagat tcgagatttt 120
aagccttcta agcaggcagg cctgtcatca gccattgcac cattctcctc agactcccct 180
cgtcctactc acccatctcc acagtcttct aacaggaaaa gtgcatcttt ttctgttaaa 240
agtcaaagga ctcctaggcc aaatgagtta aaaataacac ctttgaatcg aaccttgaca 300
cctcctcggt ctgtggatag ccttcctcgg ttaaggaggt tttcaccaag tcaagttcct 360
attcaaacta ggtcatttgt atgttttggg g 391

<210> 33
<211> 422
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(422)
<223> n = A,T,C or G

<400> 33
gcatgttcgc aatgtatgag gaaggtgggg ctctggggct tccagcagat tgaatcgtcc 60
atgactgacc tggatgcatc ctttggcctg accagctccc caatcccagg ccttgagggg 120
cgaccagagc gcttacctct ggtgcctgaa tctcctcgga ggatgatgac ccggagccag 180
gatgccactt tctccccagg ctcagagcag gctgaaaaga gccctggtcc cattgtctct 240
cgaactcgga gctgggactc ttccagtcct gttgaccatc ctgagccaga ggctgctagc 300
cccaccacca gaactcgccc agtgacccga agcatgggaa caggagacac ccctggcctg 360
gaggtaccat ctagccctct gcggaaagcc aagcgagcng cctctgttct tcacaattcg 420
ga 422

<210> 34
<211> 402
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(402)
<223> n = A,T,C or G

<400> 34
cactcctcct ccatgcccag ggaccgcggg tgcttggggc cccgacgcgt acccaggtgc 60
catctggccc tcacctcccg ccgtagctgg ctgtgacgcc cgccatgggc acactggggc 120
agtgcagtga gaagacgagg atgcccagca ggctgacaac ggtgcagaac aggcagaact 180
tgatgaccgc ggagccccgg agcctgagct tgttcacaaa gaagccgccc aggaaggtgc 240
cgccaccacc cgctggcacc accagtgtcg ctgacttgaa cccctgcgtc tgcagcttag 300
tgacatcctg taaacctaca ctttccagcc tctcaccaga gcagactgtc ggcctacatc 360
cccccacctg caggagggcg gntctttctn tnggccacac ct 402

<210> 35
<211> 368
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(368)
<223> n = A,T,C or G

<400> 35
gtgggcgcct gtaatcccag ccactccaga ggctgaggca ggagaatcgc ttgaacctgc 60
gaggcagaga ttgcagtgag ccaagatcaa gccattgtac tccagcctgg acaacaagag 120
cgaaactctg tctaanaaat ntcttgtnct cncncccaaa aaaaggtttt cactcctnna 180
aaacnaannc atnntaaccc aagnnggaat ntnngntggg acncttntgc aaaaaactgt 240
atctgtcttt antaaatatt nnnctnntnc tttaaaaanc nttnanataa ntngtnccca 300
aacttnttnt ggnnattatn tttttaanat tttttngnnc nacantnnct tnnttcaann 360
aaattttt 368

<210> 36
<211> 383
<212> DNA
<213> Homo sapiens

<400> 36
tgttttcctg actggaactc agtgctgaaa cgggcctcac agttgctcat cgtcagggat 60
acagaggatc caacgaggat gaagtacaca aggattgtca acctgtgggg gatgactggc 120
cgcacagccc catgaagacc acctgggcag ctcctctctc aggccttctg acttgaagaa 180
tggccagctc ctgtggggtc aatacaagaa taacttatgt gcacagaaag aatatttaca 240
attacttgag cttaaattta tgtaattaaa tttattataa ttataaattt aaaaacataa 300
ttttcttttt ctttttcttt ttttgagaca gggtctcact ttgtagcccc tgctggaatg 360
caggggacgg tctcggctct cgc 383

<210> 37
<211> 396
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(396)
<223> n = A,T,C or G

<400> 37
gcccaacctc cctgtcccga ggcccatggg gaggagttgg ggggatttca gaggtaggca 60
gcccagcctc tccgccagcc agtggagggc tcaccgagga gcccctgggg cccatggagg 120
gggagcttcc aggagaggcc tgcacactca ctgcccatga aggaagaggg ggcaagtgta 180

ccgaggaagg ggatgcctca cagcaagagg gctgcacctt aggttctgac cccatctgcc 240
tcagtgagag ccaggtttct gaggaacang aaganatggg agggcaaagc anctcggncc 300
aggncacgga cagtgtnaat gcagaggaga tcaaggtagn ccgtattcat nantntcant 360
gggttggtgg aggatgntcc anaacccaat gnactg 396

<210> 38
<211> 344
<212> DNA
<213> Homo sapiens

<400> 38
atctcagtgc tttccctttt tgaacttccc ttctattaaa cttaaaacag atgtcttaat 60
taatcaggct gtcttggaag ggtattgtat tgggagacaa ggggcggtgg tggacctcac 120
cttcaatcca agttttcaaa gatattttct caataactct aaaagggagg tgcttgggat 180
taaggtgaca gtccacttga tccttttctt tgttttagtg tgaatttcag cagctccatc 240
tgtcttcatg attgtacttg agcagtatta gctgtatgag ttaattttat tcagattgaa 300
gatggagggc tgggttctgc tcactcagtc ttttttttt tttt 344

<210> 39
<211> 378
<212> DNA
<213> Homo sapiens

<400> 39
ctcctctgtc cagaggtctt caacaggaag atgccagctg gcaccactgc actgtgatgg 60
gggccctctc ctctgctgac tctgccgttt ctccaggcct ccgctcagtg atgagaccaa 120
gagatcggag acaagcatgg tgctgctgct tctgctgctt ctccagaaaa tccctgggac 180
acctttgttc cagcctggtt tcctgggctg ggctcaggaa agctgccaaa ttcagtccta 240
tgttgggtcc aagctgcccc tgtgctgttt ctgtcaagcc aggtgtggac attccaagtt 300
catatgcgtg aacaaaagaa aagaggaacc cagtggatgt aacagaaccg actccagttg 360
aatgtttaga tttttgct 378

<210> 40
<211> 385
<212> DNA
<213> Homo sapiens

<400> 40
cgctgctggc ctggggcttc ccagccgtct tggcgttgtc ctctccaacc cccgccgctc 60
cgcgtagaac gccgctctca ggctgccgtc aagctcccgc ggcactctcc taggtggccc 120
gacgagaccc agagtgaccc gcgggacgcc tgtatcgacc gcgtcctctt cccaccagcg 180
tgggattcgg ttgaacgtgg agtccccagc aatcttcagt ctctcaccag ggccagggac 240
tcgtctgggg cgcgggggaa agaagcgtgg cggggctgta gatgccgcgt gagtaggatg 300
cagattgcac cgctggagcg cttgacaacc aaccgagcgt tggcttaatt ttgttttccc 360
gcacagcaag ctctctgtct ttcaa 385

<210> 41
<211> 350
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(350)
<223> n = A,T,C or G

<400> 41
ctttgaaaca agcgaattaa ctatctacgc tgcctgcaag gggccactta gggcactgct 60
agcagggctt caaccaggaa gggatcaacc caggaaggga tgatcaggag aggcttccct 120
gaggacataa tgtgtaagag aggtgagaag tgctcccaag cagacacaac agcagcacag 180
aggtctggag gccacacaaa aagtgatgct cgccctgggc tagcctcagc agacctaagg 240
catctctact ccctccagag gagccgccca gattcttgca gtggagagga ggtctttcag 300
ccncagcang tctggagggc tgataatgaa cctgctanan gttttnacat 350

<210> 42
<211> 300
<212> DNA
<213> Homo sapiens

<400> 42
aatttatgac attgtcagaa gataagtgat agatttcata ccttatttaa ttcttacatg 60
gctgtgcaga agataatgct aagtggatct ctctaaggtc acacaggcat tgatgggctc 120
aagcctaaaa ccaaggtctg ctgactccta gactacaata ggtactttaa tttccaaaat 180
gttttcattt tgaattggtt ttagcatgag ttggaccata gaatcttgga agatgagatt 240
tgcttaagtt cctggaatac catattatgt gaacaactaa cagagggtaa taaaatatat 300

<210> 43
<211> 420
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(420)
<223> n = A,T,C or G

<400> 43
aggatgttca acaggaaagc agtgagcaaa aaaataaatc aacagacaaa ggtgaaaaga 60
agccagacag caatgagaaa ggagaaagaa agaaagaaaa gaaggaaaag actgaaaaga 120
aatttgatca ctcaaaaaag agtgaagata cacagaaagt taaagatgaa aaacaagcaa 180
aggaaaaaga agtagagagt ttaaaacttc cttcagaaaa gaacagtaat aaagctaaaa 240
ctgttgaagg gacaaaagaa gatttctctt tgatagattc tgatgtggat ggacttacag 300
acatcacagt tagctctgtt cataccagtg acctttcatc ttttgaagaa gatactgagg 360
aggaagttgt aaccgtctga tacatggaag aaggagagat tncgtcngat gatgaaaaaa 420

<210> 44
<211> 422
<212> DNA
<213> Homo sapiens

<400> 44
gaccgcgggg tggttggttc tagctattgc catggtacgt ttttatatgg aaaaaggaac 60
acacagaggt ttatataaaa gtattcagaa gacacttaaa tttttccaga catttgcctt 120
gcttgagata gttcactgtt taattggaat tgtacctact tctgtgattg tgactggggt 180
ccaagtgagt tcaagaatct ttatggtgtg gctcattact cacagtataa aaccaatcca 240
gaatgaagag agtgtggtgc tttttctggt cgcgtggact gtgacagaga tcactcgcta 300
ttccttctac acattcagcc ttcttgacca cttgccatac ttcattaaat gggccagata 360
taattttttt atcatcttat atcctgttgg agttgctggt gaacttctta caatatacgc 420
tg 422

<210> 45
<211> 417

<212> DNA
<213> Homo sapiens

<400> 45
ctgcaacctc ggtctcccgg gttcaagcga ttctcctgca tcagcctccc aaatagctag 60
gattacaggc gcccaccacc acacctggct aatttttgag acagtctcac tccagtctgg 120
gcgacaaaac aagactctgt ctcaaaaaaa aaagtgtttg gcattcattg gctcttaaat 180
ggtacctatt taagaggctg tacatgttcc agtgggatgg gaagcagcag agaccaacag 240
agtctgaaga agcaagcttc tgagttatga aagcctgggt tcaggagact aacctatatg 300
taggttccta ggaaagtcca gttaaagggc ctactttgcc actgctgcct ccttcttaat 360
gctgaacctc atctcccaca agggggcagt ctcagcaggt gtcagctgag ccatgtg 417

<210> 46
<211> 418
<212> DNA
<213> Homo sapiens

<400> 46
gttgtttctg tcaggaaaat aaatcttaca gaacaactgg tggaattgaa gctgctgcgc 60
tagacttgga tattttgggt agtgaagaag caatggcaat cttgagtcta ttattgtata 120
atttagtaaa agaaaaaaat aatcgttggt ggtcctacta agagaatgca gctttttga 180
gttgtcacag aggctgtgtg tgccctacac tgaccagggt ttgtaaaacc ctttcattct 240
ggtacaagag tcgggggtat aacttttata cttgaatcta cctaccaagt ttacatttct 300
caattccttt ttgtaaggtg ctatttctgt atttaaataa ctttctttta accgtaaagc 360
tgctttctgc ttatcttatt gcactgctag ttgtatgtag gtattaattt tattgctg 418

<210> 47
<211> 414
<212> DNA
<213> Homo sapiens

<400> 47
aagcccactg cctcctaaat tgctgggatt cccaagaatt cagcttctag tgtgaccaaa 60
acaaagatgg agacaagtcg ccctgcaggg tagggcacaa tggaggtggg ggtgggaggg 120
cagagctgct gacctctgac ctctgccaag gcagacgcat tggacaacag agcaggacct 180
gaggtgaggc taattcctcc aggtgtgaag aaacacctta ggggggccag gcgcagtggc 240
tcacacctgt aaccccaaca ttttgggagg ctgaggcagc cggatcacct gaggtcagga 300
gtttgtgacc aacctggcca acatggtgaa accctctact aaaaatacaa aaatcagttg 360
gtgtggtgtc aggcgcctgt aatcccacta ctcgggaggc tgaggcagga gaat 414

<210> 48
<211> 418
<212> DNA
<213> Homo sapiens

<400> 48
agcaaaggca tctcaaagca aatagagatg tctgcaaatt ctcattctgc agcaaaatct 60
ttgtggtggt ggtctcaatc tttctttgtt ctctgaatac catcagccaa cctatacaac 120
cttttgcaag gtgttatgaa ttgagccccc actgttatat ccacaaaaaa gaaacaatca 180
gaccccctag ttgaatttga tcgctacatt gaagatagtg tggtttcaca ggaacagtac 240
cttgtaacat tgatagtcct atgatcaggt cttaaaacag ctaaggaatg ggtgattaca 300
tgaaaattat tgcaccagga atttgtggaa agcattctga gtaaatacag tgctgttaga 360
ttaaatggat tttaacattt aatgaaattg ccagattatt tttatgccaa tatttaat 418

<210> 49
<211> 416

<212> DNA
<213> Homo sapiens

<400> 49
ggtggctgtt gttggggccg tcgaggcggc ggcgactctg cgtccccggc tcctgatgga 60
ggcggggccg catccccggc cggggcactg ctgcaagcct gggggcggc tggacatgaa 120
ccacggcttc gtgcaccata tccgacggaa ccagatcgct cgggacgact atgacaagaa 180
ggtgaagcag gcggccaagg agaaggtgag gaggcggcac acgcccgcgc cgacgcggcc 240
ccgcaagcca gacctgcagg tgtacctgcc gcgacaccga gatgtctctg cccacccacg 300
caacccagac tatgaagagt ccggtgaaag cagcagtagt ggaggctctg agctggagcc 360
ttctggccat caactcttct gcttagaata cgaggcagac agtggagagg tcacat 416

<210> 50
<211> 415
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(415)
<223> n = A,T,C or G

<400> 50
gaccgcgggg tgggtggttc tagctattgc catggtacgt ttttatatgg aaaaaggaac 60
acacagaggt ttatataaaa gtattcagaa gacacttaaa tttttccaga catttgcctt 120
gcttgagata gttcactgtt taattggaat tgtacctact tctgtgattg tgactggggt 180
ccaagtgagt tcaagaatct ttatggtgtg gctcattact cacagtataa aaccaatcca 240
gaatgaagag agtgtggtgc tttttctggt cgcgtggact gtgacagaga tcactcgcta 300
ttccttctac acattcagcc ttcttgacca cttgccatac ttcattaaat gggccagata 360
taattttttt atcatcttat atcctgttgg agttgctggg ngaacttctt acaat 415

<210> 51
<211> 412
<212> DNA
<213> Homo sapiens

<400> 51
gtcacttatg cctataagcg ggcatacaac aggggcacaa taaatgtttg ttaagtgaat 60
gaattctttc agaactagat gggatcttag tccaactctc ttatttaacg aggtccacag 120
aggttctgcg attgtctaag aaagaaggct gtgttcatgg cctttgttgt ttacgtggcc 180
ctgtgattct cttggctccg tgaaagtcct gatgcagaca ttccggccat ctagaaaggc 240
atgcagacaa gccatccagc tggcatgatc ctgagtccag ctttctttaa aagagcttcc 300
aaaactgctt aagctttgac tgcacaaaac ctgcatcacc tccagttgag aaactcaaga 360
gaataagtaa gttatggagt tggagacccc agcttaacta ctagttttaa aa 412

<210> 52
<211> 409
<212> DNA
<213> Homo sapiens

<400> 52
ggtctgtctc ctcctcccac ctccaccatt ccctggttct agctttctta atatcactga 60
ctttctcata cgtaactgta tcttttgttt ccctcatact gctgcattac agatttgttg 120
tgtaataatg ttacttgaat caagagaatg tcgaagcaaa tatccaaggg attagaaaga 180
gctaatatgc aaatgaaaga ttttgggtag gcttatatgg aagtcacaaa tgggtcagaa 240
tgactgagat ctctccttaa gactggcttt tgatagggga tgcaggccag cattcagttg 300

attcgcagaa gaaaaaccaa ggagttcctt taaactgaac aagaggcagg gctatgtccc 360
aggtggacag gagggatggg gggatgtttt cttatggaaa tagcaggct 409

<210> 53
<211> 409
<212> DNA
<213> Homo sapiens

<400> 53
aagttatgaa aacagtgagt tattgtttga tcgtctgtga tcccaatttt cctaggaata 60
tagactgtta ggaatataga tcctgtcaca agaggcttaa taagtaaagg aaccatgtgg 120
tttcttggct gttttgcttt tcaaagtctg tatcatttta actagtgtag caatgacagt 180
ttctttttgt ttcttgataa ccttgctggc tactttgttt cctgataacc ttgttgtcta 240
ctttgtttcc tgataacctt gttgtctaca ttgtttcctg gttgatttat cctccttctc 300
cccagcctct ttggaaatct tataactatg gtgtttgtgg ttagaggtta gagtctagta 360
gaggatggtc aagactttga aggcaaacgc ttgcctgtga gggctgctt 409

<210> 54
<211> 407
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(407)
<223> n = A,T,C or G

<400> 54
ggaaaaactc acccccatga ttcaattacc tcccactggg tccctcccat gacacatggg 60
gattatggga gctgcaattc aagatgaatt aaggtgggga cacagcccga aacatatcag 120
gaggttcctg gaagaaacag agttgaaagc agttatcttg ctgagtgggg gactcagggc 180
atgggcagga gactgctgag ttttgtttta catcttacta catttgattt ataaaagaca 240
gatgtgcata tatcacttca aaaaaacaaa actggatgtg gctgatgcca aagtgacctg 300
cccagaagag ctgctaacag aacancatcc caggaggctg cagaaggctg aanancaaag 360
ccccacctgc tatggccaca agangcctgg atgccatgga ngccgca 407

<210> 55
<211> 401
<212> DNA
<213> Homo sapiens

<400> 55
gaatttgtaa aagttcgtat gctttgcctc tcaactgcat taacatgcca caggctcaga 60
ctgtttttgt gtaaaggatg tcaaagaacg gcactttttc taaagagaag tttgatattt 120
tgtatgcttg ttaagaaagt acagtattgg aaattaaagg tggacaactg ataattgagg 180
agtatgtcaa ttaatttttt atgtatatta cctgtttact tgtacaactt actgtacaaa 240
ttacatgcag cttcattttc aaatgaatcc ttaaaataag gaaatctttt taggaaaaca 300
tttaattttt gtatttttga ttttaaaggc atgagttatg tcaattttca gtgtattaat 360
gaagatttta acttttcatc aggttgagtg ttttcttact a 401

<210> 56
<211> 401
<212> DNA
<213> Homo sapiens

<400> 56

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attctgagtt ggggcaggct cagcctgcca gcttcttcga tgtccagcat ctctgcagcc      60
ttgggtgttc tcattccctc tgagccccaa cccctgtcat tgcttctagc tctggctctg     120
ggatgtggca gttccaccat aagctaggct acctcttctc tgctctcctc tcagtctccc     180
aaccatgtct tccatccata tgttaaccct ttccttcaat ttatgtatga ggttggctga     240
ccttgagagt tgacatcatt gatggtaaat aaccaagatg cccactgacc tctccacttc     300
agaaaagata gcatcagaaa gaatccactt agaggtggaa ccctctgcca ccttttcact     360
ttctctctct cttttttttt tgagacaggc tctcgctttg c                         401
```

<210> 57
<211> 407
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(407)
<223> n = A,T,C or G

<400> 57

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gttatactag gaattcttta taaacttaat aaatgaaagc tttttctctt ataggcccga      60
ttctctagtg gacttctggt gaaattatgt ggctaccttc cattaatgtt aatggaggtt     120
atggatataa atccctccat agtgatggaa gaatgagccc cagagagaag aatgtttcta     180
atgaatcact ggattgtgat ataggattaa cttggtgtcc ctaataccat tttttttcct     240
cctgaaagtt taaggtctta tgtttaggaa ctagtttctc tccaccttaa tcctttattg     300
caagctgcaa taatgttaag aacaggaaaa aaaaaatgta nattcctgga taggcncagt     360
ttttatatta atgnaactat ttaggctaag ttttatatta anggacc                   407
```

<210> 58
<211> 402
<212> DNA
<213> Homo sapiens

<400> 58

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attctataaa caaaaactct ttgttaaatt aaccatgaca caaattattc tattgtcttc      60
cccgaatccc acaacccccct ccaacattta aaattcatct ttagatagca gattatccct     120
taaagtacca ttttactctc tgaaaaagtc ctagaaatac tactctctgt caatgcagca     180
gaccgctacc ttgcaaggaa aagatggtct acttacataa ttatccttag ttatgtttac     240
aacattgaag caggcaatat ctgactttca ttcctgagtg aaatccagac cacagcccag     300
ggaggaccaa gccatggcat tctgttgctc cccgctgaac gtcccacacc atagggtctg     360
gctttggctg gaagaagggc aacctcaccc agtccttcag aa                        402
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<210> 59
<211> 406
<212> DNA
<213> Homo sapiens

<400> 59

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cccaaactct tatggctaac ttttttgcca cctagtagac tccagctgct gctaggctgg      60
gtgtgtgtag aataaggccc tgtgaacaca gacatccctc tcgggaataa gagctgagca     120
gtgcacttca cggtccccag gcggcccaca ccatctgttt gctgcagcag gatggcttgg     180
gtggtccatc cagggccctg cccagagtct cttggggcca aggctttccc accctgtccc     240
tctcactgcc cacctccagg taggcacagt agggagggct ggcaggaatg acccaggagt     300
gaaagcaatc ctcttgtctt ctggtgggag gatggagggg ccagggcaaa ctgtgaacca     360
gcctttggac ggggtaccca cccacttccg tgactctcct tgcccc                    406
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<210> 60

<211> 404
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(404)
<223> n = A,T,C or G

<400> 60
gcatttcaac tcagtattca ttattagttg tgtgtctgga aagattgtac ttacttttcc 60
tctttacact acagttcgct cttatggggc tctaaactgt ttaactgaag aagcttcgtc 120
tgtattttga ttgagcataa tttagtattt tatgatttcc aagatgatgt tcttatgtct 180
atcaagtcta tgtatcaaat ttataacatc atttaagaaa aaggaatttc cacagatact 240
tcagttgcaa ttttttgttt catgctactg aaaatacatt tgtttctagg ggttggaata 300
ttatagaaga tggaggatga aagaaaaccg atagaacaac gaaagaattc tgtttatgaa 360
attacaggaa ttgtgccact atggnaaagc attgtcattt tagt 404

<210> 61
<211> 402
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(402)
<223> n = A,T,C or G

<400> 61
gcactcccag gatcgggtca tcggcacaaa aggagacatt gcccacattt atgatattca 60
gactggcaac aagctgttga ctctgtttaa cccagatctt gccaacaact acaagaggaa 120
ctgtgccacc tttaatccta cagatgatct tgtcttaaat gatggcgtcc tctgggatgt 180
ccgctctgca caggccatcc acaagtttga caagttcaat atgaacatca gtggtgtttt 240
ccatccaaat ggactggagg tgatcattaa tactgagatt tgggaccttc gaacttttca 300
tcttttgcat actgttcccg ctctggatca gtgncgcgtg gtgncaatca cacgggaaca 360
gtgatgtatg gagctatgtt gcaggcagat gatgaagatg ac 402

<210> 62
<211> 404
<212> DNA
<213> Homo sapiens

<400> 62
gaaaaatctg tcagtgaagg acctgggtct ggttgagaat tacatcagct tctatgacca 60
cctggccagc ctgtgggatt ccctgaaaaa gatgcatgtc ttagaagaga aaagagtgag 120
gactcgacta gaacaggtcc atgagtggct ggccaagaag cgcttgagct tcactagcca 180
ggaactaagt gacctccgaa gtgaaatcca gaggctcaca tacctggtga accttctgac 240
ccgctacaag atagcagaga agaaggtgaa agatagcata gcagtagagg tctatagtgt 300
ccagaatatc cttgagaaaa catgtaagtt cacccaagag gatgaacaac ttgtgcagga 360
aaagatggaa gctctgaaag ccacccttcc ctgtctggcc tggg 404

<210> 63
<211> 399
<212> DNA
<213> Homo sapiens

<400> 63
gataaaatga tggtcttggc tgggattgca ggcgggagcc actgcagctg gccatcttac 60
ttaattttta taagaatccc cagaaggtag gttgtgttaa gattcaaact gtataaatga 120
gtaaagtaaa gcgtaatgag aataaatagt tcaagtaaac aaagtgacag aaccagcatt 180
caaattcaag tatctctgac ttcagagttc atgatcttaa ccactctacc atactgcctt 240
tctctgggta cataggagat atggctgttg gaagaagggt taatgtaaca atggcatcca 300
aagtacaatt ttgcttcata gaccaaaatt caaaggtact cctactgtat ataattcagt 360
gatggactag atctaatttt gtcttaacta tattgcttg 399

<210> 64
<211> 397
<212> DNA
<213> Homo sapiens

<400> 64
gcgcccggtc ctggggtccg cacgagccgg gtcgggcaga ggctgctcct cctccccagg 60
acgccggcgc cacacccgcc ccccgacgcg tgcggcggga cagaagcgga ggcgggagtg 120
ctgggaacag cctttactgc ccacgcccta cacggcgaac atgcgcagag cctcctccgc 180
cgagcggcac tggttcagct ggatctgcac ctctacggtc aggggctcag ggtggtaatc 240
gccttcgtag atcggaatca cggctttcgg cttttctgag aaaatttaag tgcgagcatg 300
agccccggga gacggatggg ctggcgttct cggccgccct gacccatccc atatgcaagc 360
cctggaccct gtcccagcgg gagcacagtt ttggtcc 397

<210> 65
<211> 399
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(399)
<223> n = A,T,C or G

<400> 65
ggggccacca atctggccga cctcaggctc tgggaaacag gctgccctcg tccctctgcc 60
tgtgggtggc tgaggcttct cagcccatct ccagttctct gcagcaaagg ccctctgttt 120
ctgtcctgca gtgggggccc tttcgtggtt aaacatgtcc ctcccctcct cacagaactg 180
agtacctatt gcggctgggc ccgcccaacc ctgtgtccct gcacccatgg gttctaccac 240
ctgattcggc tgcagctgtc actgtcccgt gtctgctctc tgtcaggcct ctgagtgctg 300
cagacgtatt aacatatcac cgctagttga tggaaagtct tgtttcttat tagaatattt 360
tgngtaggca cagggngccc cagcactgtc tatagcaac 399

<210> 66
<211> 398
<212> DNA
<213> Homo sapiens

<400> 66
ctaatattaa aaagtcatta gaatcagaga acattgcaga gttcaatttt agaatacatt 60
tagcagaaaa tacatgaatt aagagagggt gactgaatgc aatatagttc tgtggagtgg 120
aaaatatgag gtatatgtgt tcagtgatgg accactgaat atatagatag tagtcattgt 180
taattttaag agtctagatt ggagactaga aaggtcctct ggttctagtt agtgaaagta 240
tttgtacaag aagtgactct taagtattgc aacaatgttc caagagtata catattgaaa 300
tccatctctt accatcatca tgatcacact cactgccaca tctctgttcc cagaacaggg 360
catagacatc agtttctgaa acctaatagt acctaggg 398

<210> 67
<211> 395
<212> DNA
<213> Homo sapiens

<400> 67
ggccactggt tcccaggccc ccaagtcccc ctgggcctgt ccaaagactc caagaggggg 60
aaccagaagc cccactgggc ccagggtggg tcagtgccgc ccagcagcct ctgagcatcg 120
ggaggaatgt ggagtgtggg tgaggggcac aattctccac cccagggggc ttccaggctg 180
tagcaaagca gccacgtctc tccacctgcc cagggcacag acccggtgct cagccgcctc 240
cagctccagc tgagcccctg ctgcatgggc ggcccggggc ctgggggcag agaggagaga 300
gccgctgtgg gaggagagtt tgggggcgtg gtcaaggcag agttggtggg gtttgaagtc 360
cagcaggagt ggcagagaga ggacttgacg tttgg 395

<210> 68
<211> 420
<212> DNA
<213> Homo sapiens

<400> 68
ctgtcttcaa gtggctttac aggttttaca ccgcaaactt ccccagtttt gcgctcacct 60
ctgcaatgct gtgattggct acctgagtac tcgcggttcc tcagtagatg gcagtcccct 120
actgctattt ctccgagatc agacgagttc cagactcctg gagcaggtcc tgctggtgtt 180
ggagccccca agactccaga gcctctttga ggagcacttg caggggcagc tgcagaccct 240
ggctgcacat cccattgcca acttcccttt gcagcgctta ctggatgcag tcactacccc 300
tgagctgctg tcccctgtgt ttgaggagct gagccctgtc ttggaagctg tattggccca 360
gggccaccca ggggtagtca ttgccctggt gggggcctgt cgcagagttg gggcctacca 420

<210> 69
<211> 393
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(393)
<223> n = A,T,C or G

<400> 69
gtctttgtaa ggagcgtaac attgcttaag atttatatat aaccgagtca ttttctgtct 60
ctgtatcata ttcctttagg taagcttttt caaagttact ttgaatagtt gatatagatt 120
tagaacaaac gagtcaccat tctcaggata cttctattgc ctttctggaa taatgcagct 180
cattgttctg ccaagtatcc tctaatcagc ctgaaaagtg ttttctttta tttcatcatg 240
acattgggcc ttttaattga gagtgaaaat cattaaaggc aaattatttt gtgtaaatta 300
tggtagattt agccttacta cataattttg gaatgntttt atgattggtt gngtatgctc 360
tggcagatgt ctttatcatg acttatttta agg 393

<210> 70
<211> 392
<212> DNA
<213> Homo sapiens

<400> 70
atctcatcca ttcttgcttc actcaccact tcctttttct cagaggtcaa tgcctgatgc 60
caggtccact cactgaaatt ccatgaagac tggaatttgt tgccttggag catgtatata 120
cattctcttg ttattctcct cccagttcct catcaggacc ttctgttgct tctaatagtt 180

aacctcttta aatagcacag tttccctctt ctgcaagtaa agttgcagta gggttctgat 240
ggcattaata ttttaaaaga acttgtgatt ttgtttactt aaaagtgagg gatgtgaaca 300
gatgtcgact caacctgaga aagaaggtat ttgttctagt gactaaattt ataaatgaga 360
ttcagagcca cttgattaat agaagatatt ta 392

<210> 71
<211> 384
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(384)
<223> n = A,T,C or G

<400> 71
ggattgtgaa ctctggacaa aggagggttt ttagttcttt gcttcttttg acgggtcact 60
ttgccatgag cattagtggg gaattaggtt acactttcct gttatgtatt tattatccat 120
ttatatatta tacaaggcat gcttattttt aaaatagagt aaaatccatg ccgaaagccc 180
catttctcac cctgctgttg acagctgcgt gagtcctaaa ccttctcata tcatgccgca 240
tgctgcatgc ttactcctgg agccgttttn caaanaagtg cnantacact gtgctattga 300
attttntgca cnnngtnnna atctcccnnt ncttgatttt tttaagaanc cccccncnct 360
ttactnnttt aagngggncn ttaa 384

<210> 72
<211> 363
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(363)
<223> n = A,T,C or G

<400> 72
atggactcca gctgtatcca tgttgctgca aaggacacga tctcattcct tattatggca 60
tataatattc catggcgtat atgtactata ttttctttat ccaatctact gatgatggac 120
acctgggaca aatcaatgtc tttgctattg cggatagtnt ntanttttnc ngncgnnanc 180
atgtccctgg gggtgggtnt ctttnnnttn ttttnnactn cttttgtttt agncccncng 240
ncacntttca acgnntntnc tttgngnata gtggccaaaa aaacnnaaaa aantttnttt 300
ttttngnaaa aaanaatttt ttggnggggn gnncnattta ttngaaanct tattntcctt 360
cct 363

<210> 73
<211> 389
<212> DNA
<213> Homo sapiens

<400> 73
ctctctccca ttctgttttg ccagatagct gatctggcca atgaagatac tccacagttg 60
tatgtggcct gtggtagggg accccgatca tctctgagag tcctaagaca tggacttgag 120
gtgtcagaaa tggctgtttc tgagctacct ggtaacccca acgctgtctg gacagtgcgt 180
cgacacattg aagatgagtt tgatgcctac atcattgtgt ctttcgtgaa tgccacccta 240
gtgttgtcca ttggagaaac tgtagaagaa gtgactgact ctgggttcct ggggaccacc 300
ccgaccttgt cctgctcctt attaggagat gatgccttgg tgcaggtcta tccagatggc 360
attcggcaca tacgagcaga caagagagt 389

<210> 74
<211> 300
<212> DNA
<213> Homo sapiens

<400> 74
aattccgttg ctgtcggaaa atgttaattt gaagatgtgg ggcagggaca gtgacatttc 60
tgtagtccca gatgcacaga attatgggag agaatgttga tttctataca gtgtggcgcg 120
ctttttttaat aatcatttaa tcttgggaaa attcaggtgt ttggtgtctg cctttttgt 180
tcttttttcc agcacaacat aacttaccac tgatactccc cctttagtta ttctgaatta 240
ggatattttt gctccaaatt cttattttac ttaaccagaa gggaaaaaa gctgtatttt 300

<210> 75
<211> 417
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(417)
<223> n = A,T,C or G

<400> 75
ggcccggctg cagcgagcgc tggacggaga ggaaagcgac tttgaagatt atccaatgag 60
aattttatat gaccttcatt cagaagttca gactctaaag gatgatgtta atattcttct 120
tgataaagca agattggaaa atcaagaagg cattgatttc ataaaggcaa caaaagtact 180
aatggaaaaa aattcaatgg atattatgaa aataagagag tatttccaga agtatggata 240
tagtccacgt gtcaagaaaa attcagtaca cgagcaagaa gccattaact ctgacccaga 300
gttgctaatt gtgaaaattt tcagaagact gatgtgaaag atgatctgnc tgatcctcct 360
gntgcaagca gttgnatttc tganaagctn cacgtagtcc caactttcag attttgg 417

<210> 76
<211> 408
<212> DNA
<213> Homo sapiens

<400> 76
cacacacact taagaccctt tgttcctagt aacattcatc ctcttgattc ctggtgaaca 60
cggttaaatt catgcacatt tgttcttgta gtttctaaaa attagatcaa tttatttgtt 120
agccagcaaa ttgaaaattc cattattaga ttaatgaaat ttttgctctg cttatatgta 180
tacgaactgg aaatctgaat ttttaaattt agatctttaa atcaaattat ttttatgcat 240
attttcattt aatatagagt ataccaatcg attgaagcct ttcacaagta gtgcgctgag 300
cttttcttat tgaagagagt gaattagttt ctgagaagca gtctattgtg aaaagtttca 360
gatgagatta ttttctttta gtctttttaa atatcactat atgtattg 408

<210> 77
<211> 417
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(417)
<223> n = A,T,C or G

<400> 77

gcttccctcc aatggttttt actccatcct ctttctggtc ccaccatcaa ttaccttgga 60
gacagtagga aatgaaaaag aaaagaggtg gaggtaagag agaggaaaga caagtgggaa 120
cccagggctc aactagtctg cacctcctca accagtagtt taaaaaaaaa aagtanaggc 180
caggcncgtt ggctcacncc tgtaatccca gcantttggg aggccaaggn gggnggatca 240
cggggtcagg agtttganac cancctggtc gggatggtga agctntgtnt ttactaaaaa 300
tggggaaaat tggctaggca tggnggnggg tgcctgtaac cccagctgnt tgggaggctg 360
tggcagggga atcgnttgaa cacgggaggc ggaggtggct gtgagccaca ttgcgcc 417

<210> 78
<211> 421
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(421)
<223> n = A,T,C or G

<400> 78
tttttttttct tgagatggag tctcgctctg ttgcccagtc tggagtatag tggcgtgatc 60
tcggctgatg gcaacctccg cctcccgggt tcaagcgatt ctcctgccta agcttcccga 120
gtagctggga tcacaggcac ctgccaccat gcccagctaa tttttgtatt tttagtagag 180
atgaggtttc accgtgttgg ccaggctggt cttgaactcc tgacctcagg tgatccatct 240
gcctcacatc tgtaatccca atactttggg aggctgaggc agtgaggcgg catattgctt 300
gagcccagga gtttgagacc acctggcaac atggggaaac cccacagggg gtagaagtga 360
aaaagactga aaaaaattan ctnggcattg ggggcatgca tctggaatcc cacctattca 420
g 421

<210> 79
<211> 413
<212> DNA
<213> Homo sapiens

<400> 79
gtttcccgct tccagggccc ggttcgttcc cgcccgcacc cgtccctctc ctctgcaccc 60
ctgctgcttc tgctttgaag gcggaggctc catgttgtcc cctcagcgag tggcagcagc 120
tgcctcaaga ggagcagatg atgccatgga gagcagcaag cctggtccag tgcaggttgt 180
tttggttcag aaagatcaac attcctttga gctagatgag aaagccttgg ccagcatcct 240
cttgcaggac cacatccgag atcttgatgt ggtggtggtt tcagtggctg gtgccttccg 300
aaagggcaag tccttcattc tggattttat gctacgatac ttatattctc agaaggaaag 360
tggccattca aattggttgg gtgacccaga aaaccgttaa caggattttc tgg 413

<210> 80
<211> 412
<212> DNA
<213> Homo sapiens

<400> 80
gacctttaga gataattcct agctatgaac gtagtttcta gaacagataa gaatttcttg 60
gaaaacgttg ccttctgtag tacataagaa gaattgagtg tcaatacata taactaaaca 120
ggagcaaaaa taacaatact tctggaaatt tgacttaagt catggaaatt tacttgattt 180
tggacttgag gtaaacaata tgtctttctg cttttatccg cagttgcttg catatttcct 240
gttataaatg tttgtctaat gattaaacca acaaaagttc tgaaccttaa gttcaaatat 300
caaattccaa tttattccca ttttgatgtt cctaaaatta tacctctagt tcaaattttt 360
agatggccaa agtgtttgct ttattcacaa agttgaagag agactttcag ga 412

<210> 81
<211> 412
<212> DNA
<213> Homo sapiens

<400> 81
ctccagagct gcctttgaac atcctaacag taatcacatc tcaccctccc tgaggttcac 60
tttagacagg acccaatggc tgcactgcct ttgtcagagg gggtgctgag aggagtggct 120
tcttttagaa tcaaacagta gagacaagag tcaagccttg tgtcttcaag cattgaccaa 180
gttaagtgtt tccttccctc tctcaataag acacttccag gagctttcca atctctcact 240
taaaactaag gtttgaatct caaagtgttg ctgggaggct gatactcctg caacttcagg 300
agacctgtga gcacacatta gcagctgttt ctctgactcc ttgtggcatc agataaaaac 360
gtgggagttt ttccatataa ttcccagcct tacttataaa ttctattctt tg 412

<210> 82
<211> 413
<212> DNA
<213> Homo sapiens

<400> 82
ctgtcccggg ggtcagggga gggaggccag cgggccggcg gggtccgccc cgaccccatc 60
cacgaccccg actcctatcc gatcctatcc ccggccccgc tcgggccttt ccccttgcgc 120
cctggctcgg ctggctcgac gagcagtaag ttcgtagccg ccctccgaag ccgggcgtgc 180
atgggatggc agagttggcg tgcgtgcgtg agtccaccag tgtggcatgg gcatgtaagg 240
tgcgcggagg gactgcacct tctccatcag gtgcagaagg ccacgtcatg ctgaacaaga 300
gccgagaagt agaatcgcca gtgtcaagcc gtccacgttg tgggatgccc actgttcccc 360
caggatcact caagaccctg tgacttgtgg tcactgatga gtggaccaag tga 413

<210> 83
<211> 418
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(418)
<223> n = A,T,C or G

<400> 83
attttttgta cctataagct ttttccagac catagacaag atcctaaatg ccttttcttc 60
atccctgctt gctaaatccc ctccttcaaa catttcagaa aatactgtct ttacttttta 120
taaagacttc actttccaaa aatgtacccc cacctccatt tcttattact taacaccact 180
tgtgtgaaaa catacaactg cccacttgct tttcctttaa gacactgact ttaccaatag 240
tagaaactca ttactgacct actcacttta ggctgaaggt tgacagataa agcaagttct 300
ctctggtgat ctgtggaccc gccatcagtc cacaatctaa agatagtatt gagatgctga 360
tgagattggc aatgttaatc tgatgatctg tatgctcttt accacaggnt tttttttg 418

<210> 84
<211> 413
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(413)
<223> n = A,T,C or G

<400> 84
gagatgtggt ccaagggagc catccagtga cgggtactct tgtgtttgct gaattctcca 60
agcccagtgc tgcaagcatt gagtgagccc tagtgtgtgc caggccctga cctgaagctg 120
atcaggggtc agagtgccct gggcagccca ggatgaagtg ggctccaaca gcatctggag 180
ggagttaggt gtgcaagggc ctggcacccc atttcccttc cacatggttt aacctgctct 240
gctcactact ccatggctca cccctcgccc agccatcccc aaggcctagc accagttgat 300
gctcaatata catttgcaga ctacagaagt taggttcatt tatcgcattg gcagagtgtg 360
gacgctccac ctgacactac cgcttcctgc catttgngtn anttnccaag gat 413

<210> 85
<211> 405
<212> DNA
<213> Homo sapiens

<400> 85
ggccccgcgg ggcagccatg cctggccgtc tgctgcgggg cctgtggcag cgatggcgcc 60
gttacaagta ccgcttcgtt ccctggatcg cactgaacct aagccacaac ccgaggtaca 120
gtatatcaga agtatgagcc gatctttttc cagtccattg gaaatccgtt tatttttaga 180
tgcctggatg ggtactcat tgatgggaat gacaaaggga tatcaaaagt tgtgtacaga 240
tcttgcaatg ggagggatcg actcggccct ttaaaaatga gtgatagtac atggctaacg 300
tcagaaattc ataaccctct ggctgtggga cagtatgtca acaattgttc caatgacaga 360
gcagctaatg tctgttatca ggaatttgat gtgcctgcag tttcc 405

<210> 86
<211> 398
<212> DNA
<213> Homo sapiens

<400> 86
gttagtcagg atggtcttga tctcctgacc tcgtgatccg cccgcctcgg cctcccaaag 60
tgctgggatt acaggcgtga gccaccgcac ccagccatgc ctggaatatt tttgtaatgg 120
aaaaatgaaa tgggagaagt cactgttcct ggctttgagg cttactctga agccacaaat 180
caacattgcg gcgatggcag acagacgcgt ctgtggagag aagagaggac tcaggccaca 240
caagagagac cagcggagct ttgacagagg cagaaaaccc gttcatcaga tggtctggag 300
cacctgggca gcggtaggca aagccctaag ccctcgttct acagaacagc tcatcagaat 360
gcagggcatt taggtgaaaa cctttgtggc ctggggct 398

<210> 87
<211> 398
<212> DNA
<213> Homo sapiens

<400> 87
cgagaaaaaa gtagctcagg tacaggatac tgcaattctt agaatctggg aaacttttta 60
tgtgggaaat aactcgattt gcttctctgt aactgagcta cttttttctc gagctcattt 120
ttgtttaagg taacactgct agggttctga gtttgagaag ggatcttcta aaggtaaact 180
taatattgca actttcacca cagggcctct gtctaaattg catttcaagt ggaaggaaag 240
gggtatgaga agtgaaatcg aattttgctg cagaccaaaa tcattctaca aaatgtagac 300
atggtaacag cttaccacga attcagcaag atttaacgcc aagtacagtg gtgtagactt 360
tacaagtatc cacttccatt gggtgatcag acaagtca 398

<210> 88
<211> 400
<212> DNA
<213> Homo sapiens

<400> 88
aaaagcttgg gaaccagtgc ctatttattg gtaaactaag tgaaaatcca gtgacttcac 60
tgacatattt ggatcttatt agtatatggc tgggaggaga ttaagtcatt tgaatttatt 120
tcaattctga aaagaaagtg ctgcctaaaa attattatag tatttgggaa tatttctacc 180
cagtatacat ggtggcagaa aatcacataa tctgtgttgt ggcaaaagca ttgaatagga 240
agccaggaga tgtgggttcc agtacccaca tgccgtctct cctgagtacc caggtggccg 300
tgggctagac acagctgcag gtgtctagtt tgtaggtgat gggttagaaa tgggctgtaa 360
atgagatgaa gattgctttg gccttggtgg ggtggagtgg 400

<210> 89
<211> 420
<212> DNA
<213> Homo sapiens

<400> 89
aaatattaga acagtaaaaa gtcttagaag aagatgatct cctgcgagta gaggagcagc 60
taggctctga tacaaaggca attgaaaagt tagaagagga acagcatgcc ctctttgcca 120
gagatgaaga tctgactaat aaactttccg actacgaacc caaagttgaa gaatgcaaga 180
cacatttgcc aacaattgaa agtgctattc actctgttct cagagtctct caggatctga 240
tagaaacaga aaagaaaatg gaagacttga ctatgcagat gtttaatatg gaagatgata 300
tgctgaaagc agtgtctgaa ataatggaga tgcagaaaac ccttgaagga attcagtatg 360
ataatagcat attaaagatg caaaatgaac tggatattct aaaagaaaaa gtcatgattt 420

<210> 90
<211> 384
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(384)
<223> n = A,T,C or G

<400> 90
ggagaatcca ttactgaaaa gcatttaact taaaaaatca cctcagaaca ctgccagttc 60
tgaggtgatt tttaaatttc agtattaggg agagccctgc attcgctgac tcagattcta 120
cataactaat gtatgatatc atatgcttaa ctattatant gtgcgtntct tgngcataca 180
caggntataa nttttntntt ttggcanaag atcttttntt aaaaaagntn nggttttggt 240
nnttntattt taagncncct ttttttantt gngggggnnt nantnggngg ataccctttn 300
tttaaacctt ttnntttggg tgnnnaannn ctnnnncnnt tttttntgtt tttatgntgg 360
gnnncnatnt ntcccctntt tttt 384

<210> 91
<211> 411
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(411)
<223> n = A,T,C or G

<400> 91
gtttggactt taatatatga agggctggtg gtgaagacag actctagact ctaaaggttg 60
gtggctggct atgtagggga tgggggagtg ctacccctgt caggtggtgg gggcttcctg 120
gctgcagagt tgggtgggag acttggggaa gatgctttgg aaggcagtga gtgggtggtg 180

tcaacttcta gtagtgcagt gggagagctg gtcagggatg ggatggagtg aagggggcag 240
aggcatttgg tgtggggttg atcaaaggaa ttttggaaag gcttggaaac attcctatgt 300
ntntgaaaca cacctatgcc nggcaaagac tccaaactca agnttttctc ttncttctan 360
tcacaaaaaa catngctttg gagtgngaca ctggnctang aatccatgac t 411

<210> 92
<211> 374
<212> DNA
<213> Homo sapiens

<400> 92
tattttccta ttttctggaa atttcatttc tttgaattcg ggcataagag atttagaagc 60
ttcactcaaa tattaagctt tatttaaaaa gatgatttcc agtatttcat tttatattca 120
cattaatcaa gtctacatgt ttcgtttaga gtaacaggaa gatggtaata cgcccaggga 180
actatctgga agtgtagaaa ttgggatgaa caccggggtt atacttgttt tgatctgcct 240
gtggtgctat gatgacttat ttctctcat tattgcatag aaactcaatt cagtgatgtt 300
attcagatgt tattcataag ttattgccat gattcatcac ttttatgtca tcagagttgg 360
gatggctacc caga 374

<210> 93
<211> 369
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(369)
<223> n = A,T,C or G

<400> 93
gaacagcctg accaacatgg caaaactcca tctctactaa aaataccaaa aaaattagca 60
gggtgtggtg gtgnncaccn gtcnnnccac ctattcaaga ggcttatgng ccngaatgct 120
cgaacccngg acgtgcnctt ttnttntngg ctctntcgag cctctnnant tnaangctnt 180
ccgnngcnnc nttntcttta gggcantcaa gtggtccaan ntcnagctct tcngggnacg 240
natgtcggnt tttggtttgg aaaagggtgn tntctcannn tnncnnngcn gcnggcggtg 300
tttttntnn ggacntccct gtgncnnann cancctcnnn gagntatnga tgtctngncc 360
nncactttt 369

<210> 94
<211> 369
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(369)
<223> n = A,T,C or G

<400> 94
ctttgctatc ttgaaaaaaa tttagattgt tttattttgt ggacacattc ttcattcaca 60
ttgaaagcag agtattacag agtgttattt taaatttaag ctgtcaaagt ttgatttngn 120
cgcncnattn anttnctttn atngtntcnn tattggannn ntatntctnn ttnantntnc 180
acatncatnt ttcttancta ntnaancntt cttanncnnn tnannaccgn tatntaatan 240
nntaagntct tnctnttntt ttnnnnnnct ncgtntatnn tatttcanna natnttctnn 300
atagnactnc tccttcntnn ctctccttat tanaangacn catcattatt cntattattn 360
taatatttt 369

<210> 95
<211> 392
<212> DNA
<213> Homo sapiens

<400> 95
gttcccgccc gcacccgtcc ctctcctctg cacccctgct gcttctgctt tgaaggcgga 60
ggctccatgt tgtcccctca gcgagtggca gcagctgcct caagaggagc agatgatgcc 120
atggagagca gcaagcctgg tccagtgcag gttgttttgg ttcagaaaga tcaacattcc 180
tttgagctag atgagaaagc cttggccagc atcctcttgc aggaccacat ccgagatctt 240
gatgtggtgg tggtttcagt ggctggtgcc ttccgaaagg gcaagtcctt cattctggat 300
tttatgctac gatacttata ttctcagaag gaaagtggcc attcaaattg gttgggtgac 360
ccagaagaac cgttaacagg attttcctgg ag 392

<210> 96
<211> 305
<212> DNA
<213> Homo sapiens

<400> 96
aaaaaaaata cataaataca taatgctgat taggtatgcc ttataatttt ctttaataca 60
ggaaatactt attttagtag aactgacact tatgggaggt attatgtttt tggtttacat 120
ctgcaaatct acatatttga ataggaaaaa cctggacata ctgggatctt cttatatagt 180
aagttttcat aagtattcta tcaaatttat tttggttatt tggctaactc ataagttaat 240
ccacccaagt ctttttagtg attttttaac atttgagtag taattgggta attttttttt 300
ttttt 305

<210> 97
<211> 300
<212> DNA
<213> Homo sapiens

<400> 97
aattccgttg ctgtcgaagg atttttgcaa ggaatatgaa aaacaagtga gaaatggaag 60
gctttttttgt acacgggaga gtgatccagt ccgtggccct gacggcagga tgcatggcaa 120
caaatgtgcc ctgtgtgctg aaattttcaa gcggcgtttt tcagaggaaa acagtaaaac 180
agatcaaaat ttgggaaaag ctgaagaaaa aactaaagtt aaaagagaaa ttgtgaaact 240
ctgcagtcaa tatcaaaatc aggcaaagaa tggaatactt ttctgtacca gagaaaatga 300

<210> 98
<211> 300
<212> DNA
<213> Homo sapiens

<400> 98
ctttgatcct tctggaatta attttggtgc aaggactgag gtaggggctc acgtttcctt 60
cccgatgtca gccactactt ttggtctttt aatctataaa agcagggcac tgggttagaa 120
tttcctaaat ctcttatata tcaaacaaag cactcactgc aaacttgatc aatagaggaa 180
agtatgcttt ttttgtattt taccttttac cagtttcact tactgtaaat cataaggttg 240
tcttacatag tagaaaaata gcattatctt aaacctggct ttttattact aaatatatca 300

<210> 99
<211> 511
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(511)
<223> n = A,T,C or G

<400> 99
tgccgtagcc nangnnntgc tnaatgannt ntnaanngga aanccccga nnnttcgann 60
agaatccggt gctgtcgggc actgtttaag agtaccatgg agatagcctc accttcaaag 120
gatttacaga cttgctggaa aatctaaaca tgagaaactg ttaaatcaat gagactattt 180
tcaagttccc aaagcagtaa tatcctactg acttctgggt aaaaaaataa accagttata 240
agttgatgtc ctaggaaaat cgaagagaga tctgtgtggc ctggagtagt tgaggaacat 300
ggcaagaggc atggatccct gttgcaaaag gtggaaagtc tcgtcagaat acaaggaaat 360
gaaatgaaga gatatttcca gcaagaacag acaaaattta ggaaacaatt agtaaatagg 420
agcacagaaa atcattccag tcttgtcctt caagtttttt ttttttcccn tgggtaagtn 480
tgcactgaag ttaggctaaa ttcttgactg g 511

<210> 100
<211> 300
<212> DNA
<213> Homo sapiens

<400> 100
aattccgttg ctgtcgcggg agcggggaca cggcaggaga ccgagggtcg ccccgcgggg 60
gaatggagga aaccaggcga gaaaggagcg ggaagacctt ggagccgcgg tgttcgggct 120
ccgcgtccct tttccccaaa aatccacccc cgcccccccgc agacggaaag tcacgcagtt 180
gtttgagact cgcgcatctt tcctcctggt caggggggatg gcagtaggag cttcgtctgg 240
gtcgtcatga ggaatgcaga gaatggaaac gggaccttag aggactaccc ccatttcaca 300

<210> 101
<211> 422
<212> DNA
<213> Homo sapiens

<400> 101
gcggacgtga gcgataatgg cggatatgga ggatctcttc gggagcgacg ccgacagcga 60
agctgagcgt aaagattctg attctggatc tgactcagat tctgatcaag agaatgctgc 120
ctctggcagt aatgcctctg gaagtgaaag tgatcaggat gaaagaggtg attcaggaca 180
accaagtaat aaggaactgt ttggagatga cagtgaggac gagggagctt cacatcatag 240
tggtagtgat aatcactctg aaagatcaga caatagatca gaagcttctg agcgttctga 300
ccatgaggac aatgacccct cagatgtaga tcagcacagt ggatcagaag cccctaatga 360
tgatgaagac gaaggtcata gatcggatgg agggagccat cattcagaag cagaaggtct 420
tg 422

<210> 102
<211> 418
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(418)
<223> n = A,T,C or G

<400> 102
atatttttta aacatttaaa attaattatt tttgtaagta cattaattca gatgagttag 60
atcaatatga attttggaga agtgttaact gtagaatatt ttaaggcaga gcagttttgt 120

taagtataaa taattgtaga aactgagata acagtattga ttgatagcag tcttaaaggg 180
aactgctcta atgaaaagat tcagataata tagttttaac atgttggtta atatatatga 240
gttctaacga tcccaaacaa ctgagaattt tgaagcatgt ttaaaatctt gtgacttcac 300
aagcgatgat ccaacctatc atttcacctt tcaacattta gcagttttgt gcgtatagtt 360
tatgcaatgn ggnactatgc tagatgctta gtcatcctac cagtgggaaa aatagata 418

<210> 103
<211> 421
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(421)
<223> n = A,T,C or G

<400> 103
ctatatacag acctatcgac tatgggatct ttgggaaaga acaacagtta gctttcttag 60
aaaatgtaaa gaggtcactt acacaaggaa gattatggaa accaagtttt cttaagaacc 120
ctggcttcct aaaagatgat ttgaggaacc ctcccaaccc ctcagagtca ttaagctcaa 180
attctcccag tagtcaggtg ccagaagatg gcttatctcc aagtgaaccg cttaatatct 240
atgaggatga cccagtggac tcagattgtg acacagacac aaccacagat gatgaatact 300
acctggatga aaatgacaaa gagtcagaac tgtgaggctt tttcaataaa atgctttact 360
tttttcccaa aagcttataa tggactaagg tgnacatgtg catgtgcatg gaangataaa 420
a 421

<210> 104
<211> 410
<212> DNA
<213> Homo sapiens

<400> 104
ctggattttt acaatatcaa gtcagcccct cccctccatt attcttatga aagtctggct 60
gctattcctt tctcagcagg ttctctaaaa gaagctctag aaaggaaaca aacattatta 120
ttggtagtag aagtaaagtc ctttggggtt gtgagtcttt actgtatata acacttcctt 180
tctgacctgc tatttaagcc tcattacaga agatgaccct gaaattgaaa tatttcacaa 240
ttattggttt cagttcctca aaaacattaa tggagacaat taatatatta tcagagttga 300
atagaggtaa atcattataa tcttgctgta tcagttattg ctctatgaca aaccattcaa 360
aaactcagtg gcttgcctgt aatcccagca ctttggggag gccagcgtgg 410

<210> 105
<211> 410
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(410)
<223> n = A,T,C or G

<400> 105
cacaaagcaa atgtctaatt taagcactta atttttaatg tgtgaaatct ggatattttg 60
tgatttctga gcatttattt ttcatttatg tacagtaaaa ttaacaaaat tgcagatact 120
cttaaatgtt ggaatcctag ttttatatta tgttcaaatg ttttttaagt tggagagctc 180
ttaatttttt atttgcatgc cagcaggggg cattctaatc tagatacaac atttgaaagc 240
agtattttca aaaaatattt gttcgctttg ttatattttt tatttagatg aatagcatct 300

actttcattt tcttttagaa acttgagatt tcaaaggagg atctagtaac attgaatctt 360
taatagtttt ctgtgncaca atttttgaga cagataacct ttaaaaaaaa 410

<210> 106
<211> 410
<212> DNA
<213> Homo sapiens

<400> 106
ccgctatctg ggtcaggacg cgacggccgc ggcgcgggac cttaggaccc gcgggctcca 60
gggctactgt ccgtccgcca ctgcgcgcca gcaggtcctg gtctccgctc tccaacagct 120
gaaaggccgg cgcagtgaac acagaaacga aaaccaagaa atgccttatt ccacaaacaa 180
agagttgata cttggcatca tggtgggcac tgctggaatc agcttgctgc tcttgtggta 240
ccacaaggtc cgtaaaccag ggatagcaat gaagttacct gaatttcttt ctctgggtaa 300
tacatttaat tcaataactt tgcaagatga aatacatgat gaccaaggaa caacagtaat 360
ctttcaagaa aggcaacttc agatactgga gaagttaaac gaattactga 410

<210> 107
<211> 405
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(405)
<223> n = A,T,C or G

<400> 107
acgatttgta aggatgactg cttgtgttct gttggttgtt aaggtaatct ttgtaggcta 60
aaagtttagc attttctcaa catttgggac attgtatcaa ttgataacac taaacactat 120
aaagaagaat aaataatcct tcctgttcaa gccgtgccac actgagtctg tgaacgtgaa 180
aaattatcag tattatcctg ttcccccagc acaatttcat tttgaaaatt ccattatcag 240
ttttcgagcc aaacactttg gtagaaagaa gttagaaatt ttaatagaag gcagcacatg 300
cgccctatta tctaaataaa cttggtatgn aaaatttaaa atctgattat agaattagag 360
atttccaata tttttggtgg antttttggtt ctggttttaa ctaac 405

<210> 108
<211> 403
<212> DNA
<213> Homo sapiens

<400> 108
attgtcacta aatttttata atcatagatc tttgcagttt actctctaag cctgatgaaa 60
ttaagccaag ggctggatct ggcccatgga ttagaagccc attcattcct tatccaggaa 120
aggaccagag aatagttaat taagaatgtg gctttaacag agctaaactg cttggatttg 180
atttcctgcc ctgccactta ttgcctataa tttttgacaa ataatctaac ttaatctcag 240
gttgtacagt gtgcataaaa tgggaatagg ccaggcacag tgatcatgcc tgtaatccta 300
gcagtttggg aggctgaggc aggagggcca cttgatcact tgaggccaag agtttgaaca 360
tgcagtgagc tatgatatgc cctgcactct tggctaagca caa 403

<210> 109
<211> 398
<212> DNA
<213> Homo sapiens

<400> 109

ctcaatcttt atgaatatat ctaaaatggc tacttaatta attttgttca atgttgtccc 60
gatgaattca gagattattg gtatttgttc cattctaagg aagaataaat taaactaatg 120
aagacatagg cagccagtct ggcatcactg agcacacaga cctagtatta ttgacagagc 180
aggtggaaat ctcctgagtt ctgggcatat ctgcggatga aaacacactg ccttcatttt 240
agagaggtgc aagacagaag ggctattgga gacgtaaatt tatgttaaag aacagagaat 300
gtccctctct tttttcctta ccttaaaaac aaaacaaatt ctttggatat gatagtataa 360
aaatacaaaa ccctctgctt tcctgtaatt ataatgct 398

<210> 110
<211> 398
<212> DNA
<213> Homo sapiens

<400> 110
ggatgaggcg ctgcagtctc tgcgctttcg acgccgcccg ggggcccagg cggctgatgc 60
gtgtgggcct cgcgctgatc ttggtgggcc acgtgaacct gctgctgggg gccgtgctgc 120
atggcaccgt cctgcggcac gtggccaatc cccgcggcgc tgtcacgccg gagtacaccg 180
tagccaatgt catctctgtc ggctcggggc tgctgagcgt ttccgtggga cttgtggccc 240
tcctggcgtc caggaacctt cttcgccctc cactgcactg ggtcctgctg gcactagctc 300
tggtgaacct gctcttgtcc gttgcctgct ccctgggcct ccttcttgct gtgtcactca 360
ctgtggccaa cggtggccgc cgccttattg ctgactgc 398

<210> 111
<211> 394
<212> DNA
<213> Homo sapiens

<400> 111
gtaaaacagc agcatggtaa gttaaaaaaa aatcagataa tagaaatgtt aaaacaagaa 60
tggaatttat taagtgctaa aaattttaca tttttaaact tcagagattt aagtccactg 120
atgttaaaag ctgccttgta gtagaaatag tataatgtgg aaaaattagt ctgtcctttt 180
taaaaattgg gaaacaattc tccaacatct cttgaaataa ctagagatat ctggggaggt 240
taccaaacct gaatgaagag tctcaaatcc caagaaagca ttgtgtacat tttgcttatg 300
aatattggta gttctgtatt gtataataaa tcttactcct tgacttggtt atatgtaatt 360
ctgggctcct tttttatatt ttagatggaa caga 394

<210> 112
<211> 394
<212> DNA
<213> Homo sapiens

<400> 112
atgatccttt gctgcctaac tacctcaacg gcttcgagtg tttcgtctgt gactacgaac 60
tggctcggct ggatgccgag aaagcccacg cggcctctcc cggggacagc cccgtctttg 120
agccccacat tgcccagccc tcacacatgg actgcccagt gcccacacct ggctttggca 180
atgtggaaga gattcctgag aatgacagtt ggaaagagat gtggctgcaa gattattggc 240
aaggtctgga ccagggggaa gctctcactg ccatgatcca caacaatgaa acagagcaga 300
cgaaattttg ggattaccta catgaaatct tcatgaagag gcaacatctc taagtgccct 360
tgcaagagcc tttaacttgg cggagctaag gaga 394

<210> 113
<211> 396
<212> DNA
<213> Homo sapiens

<400> 113

ggctgccctt cttccctgcg gagggagggc ctgggcggtc gcgttggcgg gagggaggtt 60
acctttccca gtctcgctct ggccgcctga gccaggagga agcagcggcg aggtctgcgg 120
gaggcatggc gggagctccg gacgagcgcc ggcggggccc cgcggcaggg gagcagctgc 180
agcagcaaca cgtctcttgc caggtcttcc ccgagcgtct ggcccagggg aatccccagc 240
aagggttctt ctccagcttc ttcaccagca accagaagtg ccagcttagg ctcctgaaga 300
cgctggagac aaatccatat gtcaaacttc tgcttgatgc tatgaaacac tcagttgtgc 360
tgttaacaaa gatagacact tttcttgcga agactg 396

<210> 114
<211> 385
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(385)
<223> n = A,T,C or G

<400> 114
ctgcgaagat ggccgctgcg tcctcatcgg attccgacgc ctgcggagct gagagcaatg 60
aggccaattc gaagtggttg gatgcgcact acgacccaat ggccaatatc cacacctttt 120
ctgcctgcct agcgctggca gatttacatg gggatgggga atacaagtgt ctctctagaa 180
gtgcctggtg tggaagaaat gtttgctgaa tgaataataa aaacatcaac tgccacttat 240
tcctcagtag cacttacagg ttctgtaact cattatctca cttgattttc accacatacc 300
atgaaagtat caccattctg caagcgggaa acctgagatt cagaaagntg gtggtagggg 360
accttggccc tggtgggcag caagc 385

<210> 115
<211> 487
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(487)
<223> n = A,T,C or G

<400> 115
tagtatactn aagttttcnn nnggaaagcn cccngncttt nagcaggatc ccatcgacag 60
caacggctgg tttatttgtt caggcagtgc ttttacatga agacaaaaag aaacaaaaaa 120
caacaatatt tttgagtccc cagtcaggta gcctttccag taaatatatg actcagggaa 180
aagcctcagc gaagaggacc cagcaggaat catgagggaa ggaaaatgca gcactctaaa 240
tggccactca ggcgttccta ttcactcgga aaattaggtt catttcacag gacacagcag 300
tgtagatcag gcttcaactt aacatttaag ggaaatgtca gatttttttt taatttaatg 360
aaattgttaa tgaggaaaaa tttttaatat agtcttatct accacacatc cccatagatt 420
taaggatttt aatagaaagt catgatgtat gtatttaagc cacgttaaaa gaaaaaatat 480
actatgg 487

<210> 116
<211> 415
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(415)

<223> n = A,T,C or G

<400> 116
taataagatg ttataaaaat ataacatttt aaaaaagaaa ggtccagacc ttaagcgcag 60
agctagaaca atatttttta aataatgggg ggaaaagggg gcactttggt aattttagaa 120
atcaggtagt atactttttt tttttnnaa anggggtttn nccttgtngn taaggnnggt 180
ttnaancncn gggnntaaan nantcntcnn gcttgggcnn ccaaangggn nggaattncg 240
ggctnnaccn ncngnnccna ccnggaaaac ggggtttnaa aancngggtt ancnnggccn 300
tttggagnnt taaaaanata ntggntnaaa nttnantagg gcngggccan ntcnnaangt 360
nnttngcann ggnggaaaaa nggccnnnaa tntnganttt ttttccccna ccctc 415

<210> 117
<211> 407
<212> DNA
<213> Homo sapiens

<400> 117
gccattcttt ggtggtaata tcatttcttg ttgcaaagat gatttgagac actaactacg 60
ttgtaaaatg ccccaaaatt accatgattt ccatcatagt ttaagtacta gttttcatta 120
ttgttggtct caaattcaga gatgaatagg aatgatggat aggatttatt taagtatata 180
tcttaggtat acatttattt agtgtgtgct gattaatgtg aaagttaagg tataaaacct 240
agagacaact ttcagggaaa aaaaaaagat atcatattaa atgttttaga agtagggatt 300
cccattctat attgaagata acatagtttc aacacttgat tattataatt ttttggggtt 360
gggggaacat gtaataaagt aaatgtgtgt agttgtagta gagttct 407

<210> 118
<211> 405
<212> DNA
<213> Homo sapiens

<400> 118
ccagcctggg cgacagagcg agactccatc tcaagaaaaa aaaaaagaat tttcattagt 60
gctggccggg tttcaaatgg caagggaaca tgggaactat catgtggcaa tgtagtgagt 120
gttaaacttt gtgtttgtcc aaatcctgat ttatttttca gttcatatct ttctgggctt 180
gacatggctg atggtgtagc tgaaaccctc ctaacactaa aagccattta atcttttctg 240
taataggagc agaaaatagt taatcatcca cctagtaata taagattact gggaatatta 300
tcttctatac attaaaacag ttctagtttg tagaataata ccatacaagt tttattttta 360
aattctagtt attttcagtg cttacttaaa tgtaattcta gaatt 405

<210> 119
<211> 418
<212> DNA
<213> Homo sapiens

<400> 119
gtaattagta tttgccatat aaaaaatgtg gcttgagcaa gatgtacttc ctgagtgacc 60
ctgggcaaat tatgtaagtc atccatgaaa tggaaaaaat aacacctatt tcttgggggg 120
ggactaaata aaagtgctct cttctgaggc tgtggtgcta aaatccttta cgttggctca 180
ttggatcctc atgtgtaaag ttacttagaa tggacggttg tcataatgaa tatgtggtaa 240
atatttaatt cccttctaga gtgatgtgct gggccttggg aggtagagag atgaatcgaa 300
agggaatcct ctgtctcagg ctcagcttct gctggagggg gaggcagata ttttcatgga 360
ttattacatt cgaagggtga tatggtttgc tgtgtcccca ccaaatctca tctcaaat 418

<210> 120
<211> 411
<212> DNA

<213> Homo sapiens

<400> 120
gttttattaa ttggcagtgg aaattggaat gtgatttaag gaagaaaaca gacttttctc 60
aaatggacca catcatctct cactcacagt gacaatgctg ctcctgtaat tttgtaagaa 120
ttcacacaca ccagctgtat ttggaaaagc catgtctcac tctcgaatct cagctggttt 180
tcactgaaat tcctggaggg ctcatatttt cttccacgtg cctcttgatc tgttctgtct 240
tgtggcaggg ctctaccagg agggagtgag atctggggac acagtggctt ccaagttttc 300
taaggttcat gtgaaacctg agtacattta caaagctgca agtggattct agtgctgagt 360
cttccaggaa aaaatcccgt ttggccaccg tgacctgcca aaagttctct t 411

<210> 121
<211> 405
<212> DNA
<213> Homo sapiens

<400> 121
ctacaatctt tgcatgaaat gaagaaaacc ttttgactgt tttttaaaaa tcctttttct 60
tttctcaagt tctagggggc atttgcacat atatttgtac tcaacatttc atgggaaagc 120
ggcagacctg agctgaggaa cagcgtgggc agggagggaa agacccaggg tctggacact 180
tcctccaaca caaaaccctt ccccacccac ctcctgctcc ctccccctcg cccaccattg 240
taaaataatc agaaacttgt tctattttgt ggcagtgaca atagttttat attaaaagaa 300
aaaatacagt tttcatacag caaaatctat acaatatcat tgttttattt aatataaaga 360
tcgctaccca ccttccttcc atggtcccac cctccacgtt atttc 405

<210> 122
<211> 419
<212> DNA
<213> Homo sapiens

<400> 122
cacaccaggt atgtcacaac ttgtgctttt gcacctaata cccttttact tgctactggt 60
tcaatggaca aaacagtgaa catctggcaa tttgacctgg aaacactttg ccaagcaagg 120
agcacagaac atcagctgaa gcaatttacc gaagattggt cagaggagga tgtctcaaca 180
tggctttgtg cacaagattt aaaagatctt gttggtattt tcaagatgaa taacattgat 240
ggaaaagaac tgttgaatct tacaaaagaa agtctggctg atgatttgaa aattgaatct 300
ctaggactgc gtagtaaagt gctgaggaaa attgaagagc tcaggaccaa ggttaaatcc 360
ctttcttcag gaattcctga tgaatttata tgtccaataa ctagagactt atgaaagat 419

<210> 123
<211> 391
<212> DNA
<213> Homo sapiens

<400> 123
tatacatttt taatacattt tacttttcct gcatggactg ttttcttcac gttgagttgt 60
attttaagtg tttcatggta aactttcctg agatgtttgc taatgttaat ctgcttaata 120
gttttttttt aaattgaggt gtatgtacat acaataaaat gtgtatatct tggctgggca 180
tggtggctca cgcctgtgat cccagaactt cgggaggctg agacaggtgg attatggatt 240
cttaatttac tacagtttag tttatgttag ttggttttat tacttcccag gaaatgcaag 300
aaccgtacat ttagctcttt acctccttct tgtcctttgc cctattgatg gtatattttc 360
ttataaacct ctaaagcaac agtattattg t 391

<210> 124
<211> 393
<212> DNA

<213> Homo sapiens

<400> 124
aacgaatatt gttagtagac ttaataagta acccatctgt atacatcact actttttaaa 60
tgtctgtggt tacttttgac aataaaaatt ccaaatacaa ctgaagtcaa aatttttcat 120
tttttttctc tgacaacaga aatcaaaagt gcaattggtc attgtttaat gttccaaaaa 180
ttcctttctg acttgaaaaa aaaatgttat tatagaggca ttttactttc agaagttaag 240
aattcctgca tatgagttta gaaaactaat ggagttacga gttaccagcc tgtaagtttt 300
tatcttagga aatatggctt tctaaaggca tcatttattg tcagggaata aaaagtaata 360
aaataaaaag tcatactttt tctgcccttt ttc 393

<210> 125
<211> 400
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(400)
<223> n = A,T,C or G

<400> 125
gtctacttta atcatcaata tgctgttctc tgaacatacc ttatactttc ctagttcaca 60
tctaagataa tatgcttccc tctgcctgac acaccttaca cattcttaag aacccagctt 120
tgacatcact tccatgaatc ctaacctgaa attaactctg tcaatcttaa ttacagtcat 180
ctctgacctc tataaagctg tacttgtttg tagttattta tctagcaatc ttttctccac 240
tattagattg ttagatccta gaggacagag atcatctttt ataaatcctg ggtctccttt 300
cacaatgtca ggctatagaa aaaatgatat tacctataat aatagctcag ttaatatggc 360
cattggaaat ggcctgaatg ctctgnacta aggtnnccat 400

<210> 126
<211> 401
<212> DNA
<213> Homo sapiens

<400> 126
ctagaattga aactactagg tcaaatcatt catttttctt tctctctca gaaaattctg 60
ccaaccctgg gaaatgccag tgttactgtg ttttcaccga cactggatgt tatcagtctt 120
tatttgttgt cagtctgaga gtcagtcaaa agatgggaac tcagcattga atatgtaact 180
tctgtaatta tgaaagtact atccttagga gaatatgttc ttgtatttag gttgatttct 240
agcccttcca aaaatgagaa tttccttaca ttctctggaa ttccatgtcc taggctcagt 300
aatgaagcta atccctccct cctggggttg tctgagtatt gtatcgaaaa ataaaaaatg 360
tctgacatag cttattaact ccattaacta tgtaggtctc t 401

<210> 127
<211> 397
<212> DNA
<213> Homo sapiens

<400> 127
cattacctga aatatttatt ccgtcaaccc cctctcccat cctctgtgga ttttactcag 60
agccagggaa gttctgggtt tctttgcatt aacaaagtta tgatgttttg tggaatgaaa 120
aatggagcaa ttcgagtcta tgtcctaaat caaaatgatc cttcattgac cagtttggtg 180
gactactggc acttcaatat gcatgacaat aattatggat gtattaaaag tattgctaat 240
agctttgatg atcgtttctt ggtgactgct ggagcagatg gcaatatctt tgttttcaac 300
atttttctg aatttatgct aaggaaagac atgaaggcca aagttccatc tcccaggttt 360

ggaattgaaa cagagccaat tccagaagac attgaag 397

<210> 128
<211> 395
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(395)
<223> n = A,T,C or G

<400> 128
gtgtgatctc tgcacacacc agctcccctt tgctttctgc catgagtggt ctgaggctct 60
caccaaaagc caagcaaagg ctggcaccat gcttctagta cagcctgcag aactgtaagc 120
caaataaact tcttctttgt tttttttttg ntnggtttgn ttttttttca gaaaattacc 180
cagcctcagg tnttcnttaa cancncaaag gggctaaaac acagggtcnt agggatagca 240
ggcccctgng ccaanccaaa ncttaaatnt caactgttaa tgcagganga ttngtattga 300
accatnaatt ttacactgcc tctcaatgnn ggngncagca tttaagggta tttaaaaaat 360
acancctgaa ggttcataaa ggttcattta aaaaa 395

<210> 129
<211> 383
<212> DNA
<213> Homo sapiens

<400> 129
gtggccatca agccaatgcc tttgttattt tcctggactc accttggatt ggagaaaagt 60
taatcagttt ccagaaaggt aagagaccca gtggagcagg gccttttgag aatgaaaact 120
gaccttttct ttcactgtta ttgttgtgat ttccctggaa atatattcac ccccagtttt 180
cctgggccaa tataaagttg ttcattttgc tggcttggaa atgttattct ctctccttgt 240
tttgaagtgt taaatgtgtg gttttcaaaa tgcatttctc aaaccactct acggaaagac 300
agcaaataat ctgataaaaa aatgttcaag gatgcctgta atcccagcac tttgggaggg 360
aggccgaggt gggcaaatgg ctt 383

<210> 130
<211> 372
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(372)
<223> n = A,T,C or G

<400> 130
cgacagcaac ggatctgtta tctcaacttg agctttccca aagcctaagg acggtccttg 60
cctgtaaact ccaagatgtc attttctctg tttccatcac acccacttca tcagtcgctt 120
tccctaattc tcagggagcc ccagagcatg tgcccttccc caccttgcct tactcagccg 180
ctcctggact gtctgtccaa cctcatgact cagccgggct tcacaccagc gccctcagca 240
aacaaacacc aattggaact cttgaccaga atatttctaa atgtcagctt gtcctcaccc 300
tccacgcagc tgttgcttct gttcccagga gcccattatt ccacatggtt atgactcang 360
gcactgaatc gt 372

<210> 131
<211> 392

<212> DNA
<213> Homo sapiens

<400> 131
gagatgatgg ctgatgaaga ggaagaagtc aagccgatct tgcagaaatt gcaggaactc 60
gtggatcagc tctactcatt tcgagactgc tatttcgaga cacatagtgt tgaggatgct 120
gggaggaagc aacaggatgt gcggaaggag atggagaaaa ccctacagca gatggaagaa 180
gtagtgggtt ctgtccaggg caaggcacaa gttctaatgc taactgggaa agcactaaat 240
gtgactcctg actatagccc taaggctgag gagcttctgt caaaggctgt gaagctggag 300
cccgagctgg tggaagcctg gaaccagctg ggtgaggtgt actggaaaaa aggggatgtt 360
gcagctgcca cacctgcttc tcaggagccc tc 392

<210> 132
<211> 396
<212> DNA
<213> Homo sapiens

<400> 132
gctttacttc tgattgagct ctgttattct ctggcacagt cttcctaaga ccaattaata 60
gtgatcatgg cagtcagcct gttatcttag gattcaaaga aaatatctac ataaatatag 120
cagtcaatcc attgaagtag tgactacaat actgaacctg aataaaattt agtttactaa 180
atgaagatat gcagattcaa taaatgatta tggaccaaca tttcatcagc aactgctata 240
aatgtgaaaa atcattattt ttcatatata cacatgatca tcagacccac taaaggtaat 300
tcatgtgacc aaaactttct gctgctaaga gattaaaatg catgttaatc agtagaattt 360
aagaaagcca gagtaaaatg taaattgtga tgaaat 396

<210> 133
<211> 415
<212> DNA
<213> Homo sapiens

<400> 133
gtgtgtgtgt gtgtgtgtgt gtgagagaga gagagagaga aagaggtgtg tatctgggtt 60
atgagtcatc atacagcagc ttagcttagc cctaagtggg cattctcaga gttacaagag 120
cagcaagagg gcgagcccca gtggccagat gcaatggtgc ttttgaagtc tgcataggtc 180
atgtttgtta ttctcatgtg gccaagtcca gagtcagtgt ggatttaccc aagtgcttgg 240
atacagagag acatgaacaa atttggggcc atcactatgt cagtctacct caaaagctct 300
tccaattttt aattgttggt aactaataaa aattaataag atttaggtg ctaacattgc 360
aggttaaaca aaacctgcag tgggctagat ctgccttggg taaccatttt atcat 415

<210> 134
<211> 419
<212> DNA
<213> Homo sapiens

<400> 134
atcaccacta attccagaac attgacatcc cagtaagaaa ccccataccc attagtcact 60
ccccattcct ccctactccc agccgctggc taccactaat ttactttctg tctctatgga 120
tttgctgatt ctggacgttg catataacta ggaacataac aacatgctac tagcttcttt 180
cacttaacat aatagttgca aggctcatcc atgctgtagt atgtttcagt actttcttcc 240
tccccctacc cattatacca tttactgatg atagaattat actggaaaac tgtcacaaaa 300
gaacaatctt tgaatagaac cgtttactaa gtgaaacatt tcttgaaata taacatgcga 360
aagattgtca aacatgtcag catagaagcc cttggattta tataaagact ctcgcgagg 419

<210> 135
<211> 408

<212> DNA
<213> Homo sapiens

<400> 135
cttaatatag gatataagag ttttcttgga ctttgaactg tggacaaaat ctacaggaag 60
gggaagaggt gaatattcca aatcagacac tggcaagagc gaaggtgcag agacaggtat 120
gttcgtggat ttctgggcta tggttaacga atagaccatc tggagcacat ggttgatttt 180
ggcgtcagta gaaggctaag ttggaaaggc aggattacat cagattttgg agggcttgaa 240
tgttaagggt gggagggaag tctttcactt ttatcctgca ggcaatagag agccattgaa 300
aatttttatt ttcggtagtt tattaggaag atgaatctgc cgagtgggtt ggaaacaaga 360
aagattggaa gataaaccaa ctggataggg tcgtctggat ttcaaata 408

<210> 136
<211> 404
<212> DNA
<213> Homo sapiens

<400> 136
gacgtggcct gtggcacagg cctagtggct gccgagctgc gggctccagg cttcctccag 60
ctgcatgggg tggatgggag cccagggatg ctggaacagg cccaggcccc cggcctctat 120
cagcgcctca gcctctgcac cctgggccag gagcctctgc ccagcccgga agggaccttc 180
gacgcggtgc tgatagtcgg tgccctcagt gacggccagg tgccctgcaa tgcgatacct 240
gagctacatg tcaccaagcc aggtgggctg gtgtgtctga ccaccaggac caactcgtcc 300
aaccttcaat acaaggaggc tctggaggcc accctggaca ggctggagca ggctgggatg 360
tgggaaggcc tggtggctgc ctgtggaccg ctgtggaccg ctgg 404

<210> 137
<211> 421
<212> DNA
<213> Homo sapiens

<400> 137
ctataatgaa gaggtccttg acttatttga taccactcgt gatattgatg caaaaagtaa 60
aaaatcaaat ataagaattc atgaagattc aactggagga atttatactg tgggcgttac 120
aacacgtact gtgaatacag aatcagagat gatgcagtgt ttgaagttgg gtgctttatc 180
ccggacaact gccagtaccc agatgaatgt tcagagctct cgttcacatg ccatttttac 240
cattcatgtg tgtcaaacca gagtgtgtcc ccaaatagat gctgacaatg caactgataa 300
taaaattatt tctgaatcag cacagatgaa tgaatttgaa accctgactg caaagttcca 360
ttttgttgat ctcgcaggat ctgaaagact gaagcatact ggagctacag gcgagaggca 420
a 421

<210> 138
<211> 475
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(475)
<223> n = A,T,C or G

<400> 138
ccgattnttc natnnnactt ctggaaatcc cncaggattn atcgattcga acccgttgct 60
gtcggcacca ttgcactcca gcctgggcca caagaatgaa actccatctc aatcagtcag 120
tcaatcttgc agatattgga gtgtttcaga tttcagattt ggggtactta aactgtacgt 180
gaaaattagc tgctggggag gagaggaatt ggaatatgta acatggactc ccacatttta 240

aggatttttc taggactgca tctttctctt aataagtcag atccttattt ggttgaaaat 300
gtttactgca tgactatcac tgactatgta agatgctgat gtacaactct atgacttgaa 360
gattgagttg cttctatggg aatatgacac catttgaatt aatttggtct caatatttta 420
aagaagttta atgaattctg ttcatataaa atcaaggtca ataatgcggg ctttt 475

<210> 139
<211> 485
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(485)
<223> n = A,T,C or G

<400> 139
tttgaactcc ataatacaag ctntnagatc ctttngccng atcccatcga ttcgggcttc 60
cgttatggtc ttttcccatt ttttttttga cttctaaatc ctttgcattt tcgtataaaa 120
tttgaagtca acttctatca acttcaggcc aggcccgtgg ctcgtgcctg tataatccca 180
gcactttggg aggccgaggc aggcggatca cttgaggtca ggagttcaag accagcctgg 240
ccaggatggt gaggccccat ctctactaaa aatgcaaaag agttggccag gcgtggtggc 300
aggcgcctgt aaaatcccag ctactcggga ggctggggca ggaaaattgc ttgaacctgg 360
gaggtggagg tttcagtgag ctgagatcgt ggcattgcac tctagcctgg gcaaccaaga 420
gtgaaactgt ctcaaaaaaa caacttttat caatgctgca aaaanaaagc ttctgggatt 480
tataa 485

<210> 140
<211> 397
<212> DNA
<213> Homo sapiens

<400> 140
ggcggctcac gcctgtaatc acagcacttt cagaggctga gtcgggcgga ttacttgaga 60
tttggtctca atctcctgac ctcgtgatcc gcctgcctca gcctcccaaa gtgctgggat 120
tacaggtgta agccaccgcc cttggcctgt ttttgttttt aagagatgag gtctcactgt 180
gttgcccagg ctggacttga actcctgggc tcaagtggtc ctcccacctc agccttccaa 240
gtagctggga tttataggca caggtgtgtg ccaccgtgcc tggctgtgga gggttcttca 300
gaggcagagc cctgggttgg tttgaatcct tcatgctttg tgctgctacc ttggttcact 360
tagtacagag ggcaggggga gtggaaaggg agaagtg 397

<210> 141
<211> 399
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(399)
<223> n = A,T,C or G

<400> 141
attcgacatt gcaccacgaa atgcagtgtt cctgttggtc tctcacagat gccgtctatc 60
aggctgggga ggtttctttc tgcctcgttt gctgagagtt ttaaatttca tgatgtantt 120
gtccactgca gaaacctanc anaaaactan ncaaattaca ccccaaanca atagaattaa 180
atngattntc aaatgntaaa ccaactctgn tcctgatgtc ttggtgggct tggctcgctg 240
tttctnaaaa ctcttgantt cacattcctt nacgatgttg gaannnaant ttttgtgntt 300

tncatttgtt angnagnatt ntttaatggn ntnttncnaa ctannccagt tgntttttaa 360
nnnaccanna ncnctcccan ncctattttn ntngtggga 399

<210> 142
<211> 370
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(370)
<223> n = A,T,C or G

<400> 142
gcccaaaagc gggccagcct gctggagcgg cagcagcggc gagcagagga ggcgcggcgg 60
cgcaagcagt ggcaggaggt ggagaaggaa cagcggaggg aggaggccgc gaggctggcc 120
caagaggagg ccccgggccc agccccgctt gtgtccgcag tcccgatggc gactccagcc 180
cctgctgccc gggctccagc cgaggaggag gtgggccccc ggaaggggga agngtnggaa 240
gtnttttntn ancncnntcc cnangnnctt tnttctcnnn gancnnncat ttgtactttt 300
tantntnncn ncnnnanctn ntattcatnt ntncaaaanc caccatnntc nngtntntaa 360
nancnttaac 370

<210> 143
<211> 418
<212> DNA
<213> Homo sapiens

<400> 143
ggcccttctt cacagcagat gtatgatgat tcctggacag tggtcaggat attgcctttt 60
tgtggaactt ttaacagaaa aggtaactga aggtttgagc atgtcccctt tacaggggcc 120
atctttcccc cacctgtgta gaggtacatg ggtctttcag cggctcaaac aacacaccta 180
agtgtccttg agtctcacct tattgtgagt gttgcttgta agcagtgttg tcactaaatt 240
tatttcttct ttaatttggt aatttaccag aatatcttct tttctagcct cgatgattat 300
agctcgttga aatgcctgaa gcatttttga tttcttctct cttgctcatg agaattattc 360
caaaaaaaaa ttttggcttc caccagtgtt aaaaattggt ctgtacctaa ggttacag 418

<210> 144
<211> 404
<212> DNA
<213> Homo sapiens

<400> 144
gcattttgta aagtgaaaaa aagctggtga aatgatgaac agtggttaaa actgaacatg 60
agagggaaca aggaatacct tgtggtgtaa aatctctgtg cttagctgtg ccaaagaatt 120
tttttcagga aaacttgcac aagatcttgg cagtggtgtc ttgggcttta tctttttaag 180
taagtgttca ttactgctta catcattgtt gctattatta ttttgataag tgtgcattgc 240
caaggatgct ctgtgtcagg ggttctccaa ctcccatgtg cacgagaatc acacacaggg 300
cttgtgaaaa tcgcagagtc cataactccc ccagagaact ggattctgca ggtcttgtct 360
tggaagctgc aattttggcc tttgcattaa ttaaaatttc ttgg 404

<210> 145
<211> 367
<212> DNA
<213> Homo sapiens

<400> 145

gtgacatctg aggaattaaa tcatacttcc agatggtttg gtctaatgta tacagtttag 60
gaaagtttat tcttttttat tttattttat ttttttaaat ttcttttaga aactgggttt 120
tgctctgttg cccaggctga tcttaaactc ctggcctcag atgtggagac ccagctggga 180
ctacaggcat gagccaccac gctcagtaga aagtttgttc tttttcagtt ctgtcattga 240
aattctctaa gtgattggat ttttaaaccc cttccccttt tcatgaaatt aaacatcaaa 300
taaataaaac tacattatat aattatttag tcagaaatga ctgttgccct ctcttttttt 360
ttttttt 367

<210> 146
<211> 392
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(392)
<223> n = A,T,C or G

<400> 146
gacagttgaa gacgacttac tgctccaaaa accatttcag aaagaaaaac atggaaaggt 60
ggcccataaa caagttgcag cagaattgct ggatagggaa gaagcaagaa atagaaggtt 120
tcatctcata gctatggatg cttatcaaag acatagaaag ttcgtaaatg actatatttt 180
atactatggt ggcaaaaaag aagacttcaa gcgtttgggg gaaaatgaca agacagactt 240
ggatgttata cgagaaaatc atagattcct atggaatgag gaggacgaaa tggacatgac 300
ttgggagaag agacttgcta anaaatacta tgataaatta tttaaggaat actgcatagc 360
anatctcagt aaatataaag aaaataagtt tg 392

<210> 147
<211> 376
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(376)
<223> n = A,T,C or G

<400> 147
attcctttga gacacaagcc aagttttcgc cctgtctcct gagaccattt ccctacgctt 60
tgctgctgct gagagttacc tgaggcactt gttaaaaatt cagactccca ggtccctccc 120
ctcggagagg ctgataaact gggtctggga aggagcctgg ggantttaat tattcacaag 180
atgccccaga tganactcat caccaagcaa atttggaaa angctgncaa cagcgcccnt 240
aaatcggaaa canntngna gannnnatat ngaananana atcangggcg ntatttagct 300
nncaaggnnt naagancann caggncggan anggancann ngncnagaga cnacnnttnt 360
nnangacnnn caaaca 376

<210> 148
<211> 388
<212> DNA
<213> Homo sapiens

<400> 148
ccgttgctgt cgcactgaag tccccaaact tgtcttgatt ggcctcctct cttcagggaa 60
attgagaaga atgagagaac cagtgattaa agaggagatg gagggaagaa agagcctaag 120
gatatggaag aataaaggaa gaaagtatgt gatttaaaga agaggagaaa ggagagagag 180
aggcagttaa atctggggat gtgggataat agacttctaa ttttgggctg agtagaaggt 240

atattttggg agaagttcac acttgttttc tttacttgcc caggaaccca tggtgtggct 300
cattgtgtga tttgaaaggg tgaaatgcag ggttatgtat gatcagaatg gccaacacac 360
atatagccag gagtgttcta gagacctt 388

<210> 149
<211> 408
<212> DNA
<213> Homo sapiens

<400> 149
gctgaacgcg tgccgcgcgg ccctcacggt gcttaggctg ggtgcaacct agaacggagg 60
ttcctttcgt accgtacatc caggtttgca cagcgcgctt atgtccctcc tccaatctga 120
tcttgcacca gctctgcagt agtttttctt attatcctca ttttacggag gagagggagc 180
tgtggcttaa agaagttaag agacgtgtcc aaattcatac aacctgttgg gcacctcttt 240
atcccgaacg ctgttctagg ggatagggtt agtgaacaaa aaacgcaaaa gcccctgacc 300
gcctgggcct tacatctatt aggaggagga agacagataa actaaggctc gtgcaaagga 360
gaaaaataaa gcaaggtgac tttctgcaga cttcggactc accagtgg 408

<210> 150
<211> 450
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(450)
<223> n = A,T,C or G

<400> 150
tttgnnccnt naaancngct acttganctt tttgcaggat cccatcgatt cgcttgagaa 60
ctcatcattg tttgaagggc ccttgccata gaacttgtct ctaaattctc aagctctgag 120
agagaatctt tactatgaag ctggcaaaat gcttgccatt tctttagttc acggtggtcc 180
ttcacctggt ttcttttcta aaaccttgtt taactgcctt gtttatggac cagaaaatac 240
ccagccaatt ttagatgatg tttcagactt tgatgtggca cagattataa tcaggataaa 300
tactgcaaca actgtagctg acttaaagtc aataataaat gaatgctata actaccttga 360
gttaattgga tgtctcagac ttataacgac attaagtgat aaatatatgt tagtaaaaga 420
catacttggc taccatgtaa ttcagagagt 450

<210> 151
<211> 401
<212> DNA
<213> Homo sapiens

<400> 151
cattaaagtc actaagaata accatttttt ccagtatata tggaatatac accaaaaaag 60
accttatcct ggaccataga tacattttaa caaattccca aagatttata ttttcagaga 120
ctgttttctg aataataata ataaattaga agtaaaaaaa attggaaaat tcctaattat 180
ttggaactta aacatcatgt ttgtaaatat ccctgagtga aaataggtct aacaaaaaat 240
ctactaaaat aagtctaata aataaattta gaacatattt tgaattaact gataatgaga 300
atataccagt gataatttga gatgaaacca aagcattctt agaaaaaaat taataacttt 360
aaaaatcctg gcaagtcaga gtggctcatg cctgtaatcc c 401

<210> 152
<211> 410
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(410)
<223> n = A,T,C or G

<400> 152
ttccttgtgt attttggata ttaacccctt accagatgta tggtttgcaa acattttctc 60
acttaaatgt gtatgtttta tgtaaggaga ttgcaattat aatttactat attgttcttc 120
attattgttt gagctaaaaa ttgttaaata cgcatatgaa cttgaatata ttatacattc 180
acatttatgt tatgtattta cttatatctt gttataaatc acgtgaacac aaatttactc 240
ttaaactcag ttaactacca aaacttgaag tgtttggaaa tcaaatttgt gtgttttcca 300
tgtgttctgt tgtatttttt taatggntgn tccagaacta agcgagttgc atattcacag 360
ggccaagaac agctgagaaa cctatcttga gtaattggga agaactgagt 410

<210> 153
<211> 373
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(373)
<223> n = A,T,C or G

<400> 153
caagatttca tctattgaat ttgggtacat ggtatgtttt agcagcgttt ttgttttttt 60
ttttcttcct acncccaggn aaaaangctn tagnatttgn gaatgttggc agcaaatgac 120
tgtnccttac anagggttct ntgtctcccc aagnacccaa atgtggngac ctggnggcnt 180
caggacagng nggntcaccc caggaanccg gggganaacc cgntgcacta angctgtggt 240
tgccttngga ggttgccctn acttnnaggc canctaacct tgcctcccct gtttaaaaaa 300
nccnttnnat ncnanngggg aacccnnnca antncccctn aantnnaant ctngnccctn 360
ttnnnnttcc ccc 373

<210> 154
<211> 368
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(368)
<223> n = A,T,C or G

<400> 154
gaagactcaa taatgtcatg tcagttcttt ccaacataac catatattct gtgcagttta 60
tggacttgct aaattgagat gcatttaata tacccaatca aaatcccagc aaatgatttt 120
gtggatatct ccatangcnt annacaccta nnaaacccag aatanctaat acatcnttgn 180
aanttggaat acgacactac ctgacttnaa natttactgt acgctgcctt aatnatngnt 240
tnacngtcng gngnnttaat atacatctaa atctttatnt ctttnnttna aatnnnnana 300
tnttnancnn ccnnttcntc ntttgatnnt tnctnnnaag cttatgnttt tctttatnaa 360
nanttcct 368

<210> 155
<211> 380
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(380)
<223> n = A,T,C or G

<400> 155
gaaaatattt ctaaaagcat caaagagatt ctagatatgt gaacttccat gtaaataatg 60
gtcattattt acaattaaga aatcctggcc gggcgcggtg gctcatgcct ataatcccag 120
cactttggga ggccgaggtg agtggatcat gaggtcaaga gattgagacc ctcctggcca 180
acatggtgaa actctgtctc caaaaataca aaaattagct gggtgtggtg gngngcactt 240
gtngncncgg tncttganan gctnaggcan gaaaattgnt ttaancntgn ngggggaatn 300
ccnantnnnn ngccccaaaa aaaanntttt tnnggnaatn nggggggggn tcctttttn 360
cccnntcntt ttttttttt 380

<210> 156
<211> 461
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(461)
<223> n = A,T,C or G

<400> 156
tcgaannact ncgnaaacnn ctacttgntc tttttgcagg atcccatcga ttcggttcat 60
ctgcagccct tgcctgagga taaggtttat gattgggtaa agatcagaat accagggcca 120
gctaaggcaa cgactccctc cccaaacccct tgggacctca gccagtccca aggctgccct 180
gacaatcagg caggctcccc accgtgaggt tantttttnn tttnntttcg nnacncnntt 240
cnntcttttt tnntttngtg gnncacancc ttttactntt tcattcctcn caangtgtnt 300
nttttaanaa nanancactc nttcngtcnn tnggngnnan gngtatttnn nncnnntntn 360
taantanaaa tagtngnntn ggctctncct nnntcagnan aanaaatntg gntatnaaan 420
nnctccttct atgcngggnn aantnanngc actcnnnaaa a 461

<210> 157
<211> 403
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(403)
<223> n = A,T,C or G

<400> 157
aactgaaaat gaaggatcag tcattgagaa aactacaaca ggaaatggac agtttgacat 60
ttcgaaatct gcagcttgcc aagagggtag aactacttca agatgaacta gctctaagtg 120
aaccacgagg caagaaaaac aagaaaagtg gagaatcttc ttctcagttg agtcaagagc 180
agaagagtgt ctttgatgaa gatcngcaat cnacgataga agagaatgac cntntttata 240
cnnntggntt gatctnnnnn atangncnnt tttttnnntc ntttntgcca nnanaaaaac 300
ttntttttnc anttncccnc cnnnnnnnnn nttntnnnng gnntnctcat aaaannannt 360
tantttcttt tnnaacnnnn nnttntttnn nccnnttttt ttg 403

<210> 158
<211> 407
<212> DNA

<213> Homo sapiens

<400> 158
aaaatattaa acacaaacta ccacctacct cccgggccct ggaatacagg tttgaggata 60
cagtgttggc agcttcaaga agagaagacc ttcttgccag gacataaaat gataccctcc 120
tctgggagcc tgcttcgaat agtgggactc agggagataa gaccttcttg ctggattttt 180
atgacacaat ctctttataa ttttacaaat aaaggaaaaa agacccatgt aagatatgtg 240
tgcccttcct cagggtgttc tgctggttgt ctgatgatgg tgtcagggca gctaaggaca 300
ggataaaggc ctggagaggg tgcttgtgcc cttatgttat cagcaccgtt gtcctaggat 360
tcgtgagggg attctggaac caataaggga gttgaactgg acctgat 407

<210> 159
<211> 420
<212> DNA
<213> Homo sapiens

<400> 159
ggtatatgca aacaacattt aaagagctct tcttattaaa aaattttaaa ttataataag 60
ttaaaattat aataatctaa gtgtttgtat tacttccatg ctacggataa ggaaattgtg 120
tctcacagag gtttcatgcg ttggtcaaaa ttacacaaaa agtaaaaggc agaacctgaa 180
aataagggtt cacatcttag gactccaaga tggtatacac atttgacttt tttgtcttta 240
aacttgctgt gaacattttt ccacttttga ttcttaagta taaatattaa gtgccttctt 300
tgtatttcag tattaggctt ttaagtcttc tacttccaaa aaaaaaatta aaagtaaaat 360
ttaacaagca ttctaaatat tccaattatg aaatatattt catattatga gaattttctt 420

<210> 160
<211> 382
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(382)
<223> n = A,T,C or G

<400> 160
ggtaagactt atattccatt gtggatgtat gtgggaaact ttaaattgtg actttctttt 60
tttttngnan acanagtttt gctnttgttg cccaaactgg agngcagngc cnaaattgcc 120
ccnttgcnct ccacccctggg ngatggaagn naaaccntgt ntcancanca ncaacaaatc 180
cnttggagta gttnanctaa agtacctaaa taagganatt tgaggngaan gggnggtcca 240
nnggtntncc aaaggaaaaa gtaaaaanat ttgggttaaa tnttaaccaa agncancaan 300
aaaagagggg agttaaaaaa anacatctaa anaggaggct tancnttatg aaaagtgccg 360
gaaatanctt gntngtgttt at 382

<210> 161
<211> 429
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(429)
<223> n = A,T,C or G

<400> 161
gtcctgacct caagtgatcc acttgcctcg gcctcccaaa gtgctgagat tacaggtttg 60

agccaccacg cccggccata aacatttttc tttttggaca aaaataacat tattatagac 120
attttagaaa atacaaaaaa aagaaaagca aaattaaaac atattcctga gtgaacattt 180
tggtttatag tttttgagag ttttccgtgt ggataaaact cggtggaaaa caaaaacctg 240
aaaaaaaaaa aaactaaaaa anaanctttn ggggtnctga gncccnctga aaanttntng 300
ggnggaaatn cctattngtt ttttcangtn cntgttactt taaatnaagn ttttccancc 360
cgnggcccaa anggggccca gganggtttt aaangcggcc cancataaat gggnaaattt 420
ttttaaaac 429

<210> 162
<211> 420
<212> DNA
<213> Homo sapiens

<400> 162
aggactattt tcacgtttta atgccgagag gtctctgtga cgattttggt tggttgcaat 60
tagggattct gtgaagtcag taatagagga gttgtctgtg gaattagtga tggtggtttc 120
ggggcatggt gatgggggtc tgtgacgtcc gttgatggtt gtctgtgaca gggatttctc 180
gggtcattga tggggctctt tgggatgagt gattggggtt tgggggtcag tgacgggagt 240
ctgtggtcag tgactgaggg cctgtagggt cagctatggt ggtcggtgag gactgtgatc 300
agcttgcttt ctgacctgag ttgaaagttc agttctttcc atttcagcct gtaatataaa 360
gattaacaag ttttgatgtg tagcaagttt cgtattggtc aaatctaagt gtttaaaaat 420

<210> 163
<211> 417
<212> DNA
<213> Homo sapiens

<400> 163
ataaacttca gacctgcatt tcagaatacc atccagaaaa tccattttga cctcctgtaa 60
ccctccagct tagcatgagc aaacctaaac tcactgtctc ctccagctca cttaacagaa 120
tttaatccac ctatttttgt aaactagcaa ttctgaagat gttctgagct tcttctccat 180
caccatatac actctcttgt tcatcaagta ctgataaatt ttttttaaga gacggggttt 240
tggctgtgtt gcccagactg gccttgaact cgtaggttca aacagtcttc ctgcctcagc 300
ctcccaagta gctgggacta caggcaagtg ccactgcgct ggcttaattt tacttgagtc 360
atgtgtctca aatctggcct ttcatcttgg tccacacgca ggccttcatc acctctt 417

<210> 164
<211> 394
<212> DNA
<213> Homo sapiens

<400> 164
atgctgtaga ctgaattgtg ttccccaaaa ttcatatttt gaacccctaa tcccccatat 60
gactattgaa aatagggctt caggtggtaa ttaagataaa atagagtgga aacctgataa 120
gacaggaagg ccttataata ataataagag ataccagagc tctctcttcc ttgtgagaac 180
acaacaagaa ctcagtttca ccatgcccag ctaattttgt atttttagta gagatggagt 240
tttattatgt tggctaggct ggtcttgaac tactgacctt aggtgatctg cccaccttgg 300
cctcccaaag tgctgggatt acagacgtga gctaccatgc ccggcctctt ccagtctatt 360
ttctaacccc atttacactt ctccctcaca ctcc 394

<210> 165
<211> 417
<212> DNA
<213> Homo sapiens

<220>

<221> misc_feature
<222> (1)...(417)
<223> n = A,T,C or G

<400> 165
cttcaccctg atctcccaaa tacaaatacc tatgtaacca tattataata atcaagatta 60
agaaattaac atgaatataa tcaggaaatc aggcattact attataaaat ctattaactg 120
tacttaaatt ttaccagttg tcccactgat gtctttcttc tggtctaaaa cccaattcag 180
gatcacatgt tgcatttagt tacttttaat ctggaactta tgaacacttt gacaaatact 240
tgtcagtatt ttgtatatcc tctctcattt tggttttgta ttgcattttt catggttaaa 300
ttcaggttag gcatttttag caaaacatca aagtcatgtg cctcagngaa tttccatgan 360
ttggcccctt actggtgatt ttaaccttga tcacttgnta agggggganct gncacat 417

<210> 166
<211> 493
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(493)
<223> n = A,T,C or G

<400> 166
gaaaaaaaaa nttttgaaac ccctttggna cncnttaata caagctactt ggtctttttg 60
caggatccca tcgattcgca acaaatcatc ctggagctag cattgcactc tcgagaccct 120
ctcttaataa ggacttccgg gatcacgctg agcagcagca tattgcagcc caacagaagg 180
cagctttgca gcatgctcat gcacattcat ctggatactt catcactcaa gactctgcat 240
ttgggaacct tattcttcct gttttacctc gccttgaccc agaatgaaga aaacatttgc 300
gatggaaaag tgactttgta atatcaaatg ccaaagctac tatcattcag tgctacatga 360
actgtgactt taagaatttt ggtgaacttt gatatttttt gtttgtctga aagaaaggaa 420
tgtgtaagtg aaagctgaaa gaagaataac caggatgatg agagctgtgg aagctgtatc 480
gccaaggaat tga 493

<210> 167
<211> 414
<212> DNA
<213> Homo sapiens

<400> 167
ctggctccta ctacctgtct cactgtgttt cctactactc tcctgccctt tctcctctta 60
ataaacactg ggctcatggt gtttccttta acatgccagg catgcttgac cctgtcctgt 120
ctcagggccc tgctgttccc tctgcctgga acattcttcc catagtgtct gcatggctcg 180
ctctctcact gctttggatt gctgctcaaa agtcacctta tcaaaggcct ttcccaaagg 240
tttaaaaatc attctactat aaagacacat gcatacatat gtttattgca gcactattca 300
caataacaaa gacttggaac caacccaaat gcccatcaat gatagactgg ataaagaaaa 360
tatggcacgt aagcaccatg gaatactatg cagcataaaa aagaatgagt catg 414

<210> 168
<211> 487
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(487)

<223> n = A,T,C or G

<400> 168
ttggannccn tttgagnacn ntanaaataca agctacttgt tctttttgca ggatcccatc 60
gccttactct tatttgctta gcttggggtt tcatcaaagc aggcacattt gcaagaagtc 120
atctacttat tgaacaactc tcaggaaaag acataaatgt cattttgttt tcaccttcta 180
tgaatcatag ttggtatctt caacagagac agcaagtgca aaatgtctgg aaaaatctct 240
gagttagaaa agacttacag aaaataagca aatttaggtt aaaaatgccc catctctctc 300
tttttctgaa acccagacat acacacacag agtcatcctg tttgcttgca attttaatct 360
ataaaaggta ctcataggta atttaaattc tagtgaatca tccctttgga aactaattga 420
aagntttttt attttgaaat atcaaggcat ttttctttaa aattctatan gaagtanggg 480
cttcagg 487

<210> 169
<211> 452
<212> DNA
<213> Homo sapiens

<400> 169
actatagaat acaagctctt gttctttttg caggatccca tcgattcgtc ataatgtaag 60
agataattta ggccaaatat tgacttggag tattaaacag attttgtaaa actgaaaaac 120
aaatggaatc aagtgagtat attttggata ctttgaaaac aaaaatacat agtcatattt 180
gggctttgtt aactagttac agaatcaaga aagcttgaag aagtttgaag gttacactgg 240
ctaatcatag ttaaaatata atggaaatag aaacataaga agttacattg ataattctct 300
aaggttttgt gtaatgggaa aaaaacccaa taattttagt gactatcata ttccttttac 360
tacatctttg ggtgtatagt ttaacttcga acactcactg atttcaggcc attcagtccc 420
tttggcaaac caacataaaa atcttttttt tt 452

<210> 170
<211> 154
<212> DNA
<213> Homo sapiens

<400> 170
actgattgga actgtattat attaaaatac taaaaatcct aagtgtcttt cgtctttgcg 60
gatgggaaag ggaaaaatgc tacctcgtag tggcttctga tgggaacagg acgcgggttc 120
tgttgctgcc ttcctgtgtc tttttttttt tttt 154

<210> 171
<211> 413
<212> DNA
<213> Homo sapiens

<400> 171
gttctggagg ctgggaagtc caagatcaag gggctgctct ggcaagggcc ttcttgctgc 60
atcatcccat ggtggagagt ggaatggcaa gacagatcaa gaggggacct aactggcctt 120
ttataaggaa cccagttcca cagtaatggc attaacccat ccatgagagc agagccccat 180
gatctaaaca ccttttatta ggccctgctt atactgttgc actggggatc aagttgcagc 240
acttggactt cgggcaacac attcaaacca tagcaggcac cttaataaag gtggaaaagg 300
gatgtggcag ctacagtggg agggaaaagg tggctccctt agtgtgcttg ggaggagggt 360
aagagatgcg tttgcagttc tcatggccgc agactgaagg ggcctggtta cct 413

<210> 172
<211> 460
<212> DNA
<213> Homo sapiens

<400> 172
tctagaatac aagctacttg ttctttttgc aggatcccat cgattcgcac atttcaagtg 60
cttaacagcc tcatgtggct agtgactgct gtattggacg gtacagatat ggaacatttt 120
catcatcgaa gaaagtccta ttggacaaca cttctataaa aagtttgaga gcaggaattc 180
tcatttccat tcgtctgtag cttctatccc caaaggcaaa gaaactaaaa gagaaatgac 240
tcattgaaga ttggcctctt tcctttctct aagacaaacc taagtaaaag cctgagcttt 300
gagtcctatg ctcagcacac gggaaggaga tgttaataat taaaataaag ttgatatcct 360
gtctttaggg agttcccttg atctcttgaa agagacacag ccccatttac attatttcgt 420
ggatttcacc agcataagta taagtttttt ctgtaagtcc 460

<210> 173
<211> 373
<212> DNA
<213> Homo sapiens

<400> 173
atcccacaga cagcagccag ccacgtggac tcctccaacg ctcttcccag ggatgagcag 60
ccgcccgctg acatgcttcg gcctgacccc cgggacaccc tctatcgagt gcctctgatc 120
cccaagtcgc atctccgcca cgtcctgcct gactgtccct acaaacccag ctatctggtg 180
gatgggcttc ctctgcagcg ctaccaggga ctccggtttg ttcatctgtc ttttgtttac 240
cccaatgact atacccgcct gagccacatg gagacccaca ataaatgttt ctaccaggaa 300
aacgcctact accaagaccg gttcagcttt caggagtaca tcaggattga ccagcctgag 360
aagcaggggc tgg 373

<210> 174
<211> 390
<212> DNA
<213> Homo sapiens

<400> 174
cttttttttt gtttgttttt cttaatagat gcgctctgac tttgttgccc aggctgatct 60
tgaactcctg ggctcaagtg atccttcccg ccttggcctc ccaaagtgct agggtttact 120
gcgtgagcca ctgtgcctgg cccaggttgg tcaatcttta tctcattgct tagagagaac 180
ctcctctgga aatcttcctc tctcggtagc ttattcctct ctagtattgg gtcctgagaa 240
ctccagagtc ttagcctccc tggacttctt tctagcctta tctccttgac ttacaaaggc 300
tcctgaatcc catgtgattt ccccccttctt tgcaggatag tttggaaact tcagtcagtt 360
aaactggttt gatcaaaaag cttacataat 390

<210> 175
<211> 389
<212> DNA
<213> Homo sapiens

<400> 175
gtttcagaag ggcatgaaaa tcaacatgga caagaatcgg aggcgaaatg cttcccggtg 60
ccgggagtga gcgatgagct ggcttctgtt cctggcccac agagtcgcct tggccgcctt 120
gccctgccgc cgcggctctc gcgggttcgg gatgttctat gccgtgagga ggggccgcaa 180
gaccggggtc tttctgacct ggaatgagtg cagagcacag gtggaccggt ttcctgctgc 240
cagacttcgt cgtcgtctac actgatggct gctgctccag taatgggcgt agaaggccgc 300
gagcaggaat cggcgtttac tgggggccgg gccatccttt aaatgtaggc attagacttc 360
ctgggcggca gacaaaccaa agagcggaa 389

<210> 176
<211> 411
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(411)
<223> n = A,T,C or G

<400> 176
gaccacctga ttgcctcctc gtgctagacc ttgaaccaga ggcactccgc taagctttct 60
gacccacaga aactatgaga tcataaatgg attgttttaa gccactaaag atttgaagta 120
atttgtcatg cagcataggt aactaataca gtagtgtact tatttgccaa agtaataatt 180
tttaaaggaa tacagcaaaa tataagactc catcataatc tggcatgcaa taaaaaatta 240
ctagacaatg aagaagcagg aaaatgtcac ctataaccag gggaaaaatc agtcaataga 300
tgcagaccta gaacggatag aaatgatagg attagcatgc ngcaatgnaa atatgatctc 360
tgcttaaagt atgtgaaggg aagcatgccc agatgaagaa agaaatgaaa a 411

<210> 177
<211> 449
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(449)
<223> n = A,T,C or G

<400> 177
tagttttgna ctatagaata caagctactt gttcttttg caggatccca tcgattcggc 60
gcttgcacgc tgcaggagcc gcaaacgtca gctgttctgg aaaccgagag ggtcccagag 120
agaggagata cgggcgcatt tgagagcaag ggcctacttg gccgggactg aagcttgcga 180
gttgagctcc agttcggccg gcagttccat cccgcttcag gaacaggaat ccaagggccc 240
acgctctgtc tgccaagggc cattcctgcc cggagcaccc tcctttccct tgcgcttgct 300
ctccggtacc tgttccgcac ctgagctcaa gggcagggag aggccgggcc tctggcagtc 360
cacgaaggaa gccgtctgcc ttcggttatg attttaggaa caagtccaac gagggtgttc 420
aagcaagtta atggttgtgc taactcttg 449

<210> 178
<211> 365
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(365)
<223> n = A,T,C or G

<400> 178
gagagccggg cggccgagga cggcttccgc aaggcccaga agccctggct gaagaggctg 60
aaggaggttg aggcttcaag aaaagctacc acgcagcccg gaaggatgat aagaccgccc 120
atacgatgga tagccacgca aaggcaaacg gcgccgtctc ccaggagcag ctgctcaaac 180
tgcnagaacg ggtngtacgc tgtgccaagg aggccgcgaa gacaaaagct tantntgatc 240
antccctggc aanctgnatc gctcactcca cgctacatgg nggacatgtn catgcctttg 300
anaccngcca ngccntnnnn cnccagnggn ttnttttctt tanggtntgn tnntcanctt 360
nttct 365

<210> 179
<211> 391
<212> DNA

<213> Homo sapiens

<400> 179
agaaagctta cagaaaactc gccctgaaat ttcaccctga caagaactgt gctcctggag 60
caacagatgc tttcaaagca ataggaaatg catttgcagt cctgagcaat cctgataaga 120
gacttcgcta tgatgaatac ggagatgaac aggtgacttt cactgcccct cgagccagac 180
cttataatta ttacagggat tttgaagctg acatcactcc agaagagctg ttcaacgtct 240
tctttggagg acattttcct acaggaaata ttcatatgtt ttcaaatgtg acagatgaca 300
cttactatta ccgtcgacgg caccgacatg agaggacaca gactcagaag gaggaggaag 360
aagagaaacc tcagactaca tattctgcat t 391

<210> 180
<211> 401
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(401)
<223> n = A,T,C or G

<400> 180
gaggattccg ctctttctcc atcagtttca tagccctgga attgtagaaa agctctggtt 60
tcaagaccat tgatatccat ttctgtcagg gtgtcagaca aagagaaaat tgaccaactt 120
caggaagaac ttctgcacac tcagagcaaa atttggaagg tgtaatgata gaaccttatt 180
attatcgata gatgcaaaag ctaattgaga aataaggaat aaagacagaa ctagataagt 240
atggagttaa ctcatttata tgtaaaaacc tattttgagt gaatcttatg cccaaaaggg 300
agaaagtggc ttgccttata taaacttatg cttgcatttt tacattgata agctaatcag 360
gtaaagaaat tcgagttggg ctaccacatc gtctagnggc t 401

<210> 181
<211> 405
<212> DNA
<213> Homo sapiens

<400> 181
tgcatatgtg atgagatgaa gtgaggtgag gtgaatgatt gtaggcgttg tgacataatg 60
tttggctact gttgactctc caacaggatg tcaggaggag gatcatttga ttcaggtgat 120
ctagatcatc aagtcgtgac agtgttgata gctaaatgtc aggagcaaag agtgtccatg 180
actaacaggc agcatggata tgctgggcaa agggatgatt cacatcttgg gcagcacacc 240
atgagatttc ttcatgctac tcataatgac atgcaattta aaacttataa agtgtttatt 300
tctggcattt ttaatacttt tggaccatgg ttgactgagg gtaactgaaa ccaaggaaag 360
caaaaccaca gataaggggt gactactgtg tgcccatttt tatta 405

<210> 182
<211> 408
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(408)
<223> n = A,T,C or G

<400> 182
agaaaaaagg gtggatggct gaatacaagc tagtctcact tcactagaaa tgtccacatc 60

ctaatagtga acctgatttt tataagcatt taagtgctct ttcatgttcc ctttctacca 120
cattcagaaa ttgctacttt tcctttaaaa acatttaatt tttgttatat agattttcaa 180
gatgtggaat aaagaacttt atgtgagaga acagcaggat gcatatgaat tctttactag 240
tctcattgat cagatggatg aatacctcaa ggtagtaaaa gttgtacttt ccctctaact 300
ccctcaaact ctaattatag tatgagaata gtgcttagca tttgggggta ctatgaaact 360
gacgaatcag aaattgatta tctttaacat aagaactatt atnggatt 408

<210> 183
<211> 439
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(439)
<223> n = A,T,C or G

<400> 183
ccaaagtgct gggattacag gcatgagcca ccgtgcccag cctacacgta tgcagataca 60
cacaaatata cacacacact gaaacatgca tgatggtgtg atagggccta aattattgct 120
gtgtggctat tcctaatctt gccccttttct cctggtttct aaggaacatc ctcttctggg 180
ccagctccca ggttctcctt gttgcacaga accaaactaa ttcactaata agagcagggg 240
aaaaaaaaaa aaantaagcn gggctngggg gctcaccccn gtaanccnaa aacttcggna 300
nactgancca gnannatggt ttgnncccag gagttttaaa ccanccngga naacaaaggg 360
anannctcat ttctaaaaaa naaaaaaaaa antttttttt antnaccccn ggcgggggga 420
ccctgccctt tattccacc 439

<210> 184
<211> 459
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(459)
<223> n = A,T,C or G

<400> 184
tttganaccc tttgagnacc atagaataca agctacttgt tctttttgca ggatcccatc 60
gattcgaaca acaacaattg cattcatttt atgtttcagg ttcaggggga ggtgtgggag 120
gttttataat nccntnccgt tcntgnggcc natncnttgn cccatanttn ccttcttcnn 180
ccattttnnc tatttngatt ggaaccctga tctacnggca ctgnagcnta atnaaatngt 240
atcccnttcn ncgttccntt ntnaaccntg acttttannc tcantntntc tnctgccgct 300
ttttcntnnn ntaaaccnnn cntnntacct tgntaatctt ttaggataan ctgnangatc 360
nncncatctt nntaaangnc nncccccttg aacgatnnnt natncngtga tccaccnatt 420
ccnntnngtc ccccccttnat cggggnctgn cagcttccg 459

<210> 185
<211> 419
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(419)
<223> n = A,T,C or G

<400> 185
gctgggaagc agagggtaat aagtggcgcc ttaagacaac cctgtagcag cagcagtggc 60
ggccaaagga ggctgctcag ggaacaagcg gctgtagtag tctgtggggc gactggagtg 120
accgaagcca aggcagttta gtgcctctcg tgttcttatt ttttaacctc tgactatgca 180
attctgaaac ctccccccatt cgggggacca gacagcctga tagacacctt ccactctcct 240
tcctcccgcc gtggtctcga gaacagaagg atctctcctt aacgcctttc accattaaga 300
ggaaagcgat ggaggagctg agcgctgatg agattcgacg gaggcgcctt gcacgacttg 360
ctggtggaca gacctctnag caaccacccc actnaccttt tcccanaagg agaaccctc 419

<210> 186
<211> 397
<212> DNA
<213> Homo sapiens

<400> 186
aatctctatg gagtggcctt cctcctaccc tagtgatggc agttcctgcc acagttattt 60
attttacctg ctatgatcaa ttaagtgctc ttctgagatc taagttagga gaaaatgaaa 120
cctgcatacc aattgttgct ggaattgtag ccagatttgg tgcagtaact gtgataagtc 180
cactagaatt gattagaacc aagatgcagt ccaagaagtt ttcttacgtg gaactgcatc 240
gatttgtcag caagaaagta tctgaagatg gttggatttc cctttggagg ggctgggctc 300
ctactgttct tagagatgta cctttctcag caatgtactg gtataactat gaaattttaa 360
agaagtggta tgtgagaaat ctggtttata tgagcca 397

<210> 187
<211> 413
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(413)
<223> n = A,T,C or G

<400> 187
ctcgggcgct gacggcggcg gtggcgctgc ggtggcggcg cggtcggaca agggcagtcc 60
cggggaggac ggtttcgtcc cgtcggcgct ggggacccgc gagcattggg atgctgtcta 120
tgagagagaa ctgcaaactt tccgagaata tggagataca ggtgaaatct ggtttggaga 180
agagagtatg aatcgactaa taaggtggat gcagaaacac aagattccac tggatgcttc 240
agtgcttgat attggaactg gaaatggtgt tttcctggnt gaacttgcaa aatttggttt 300
ctctaatatt actggaattg attactctcc ttctgcaatt caactttctg gaagtattat 360
agaaaaagaa aggttatcta acattaaagt taaaggnaga aaactttttg aat 413

<210> 188
<211> 394
<212> DNA
<213> Homo sapiens

<400> 188
aaattttcta tataataata ggctcatttt aactttaaat ataaacactc attatttcaa 60
aagtaaaatt aatggttctt ttaagtcata agaggaataa tgttataatt cacttactga 120
agtgtttgtc tcagactttg taatgaatac tttaaaccaa aaattaagtt ctacatacta 180
tctatggata aaaagaagtg gtttgtaaat ttatctttat ttttactaaa ttaaaaaatt 240
taaagccaaa atgttaggtc aggatttaaa acaagcattg ggtggacagg gtgttgggcg 300
taatggttag attgaaactc ggtgtcagct ggttactgat tgcatcccca ctttaggatt 360
ttggtaaaat taaagcaatt aatgcaaata aagg 394

<210> 189
<211> 398
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(398)
<223> n = A,T,C or G

<400> 189
gtttaattaa aacaaagcat cgcgaaggcc cgcggcgggt gttgacgcga tgtgatttct 60
gcccatttgc gtcattgccc caatgtnann atnatccntn tnntananna ccattggaan 120
nnnttaangg tatattanta nagtncaaaa nctcttnatt ancntacaga nanggataat 180
ttaaatntcc aangttggna nattcatntn tattangcna tttntntnca gatanngnct 240
tngacncaag tttnncaact gnaatnttaa agtatncatg gttngtacct attnnaagtc 300
ngctttgaga aaangagggn tnctatnggg ggtattgncc atctnaccgt nananctnga 360
aaaaaatgga ctgaatgnnt anaaacngga ttaattta 398

<210> 190
<211> 409
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(409)
<223> n = A,T,C or G

<400> 190
attttgatga atggtttgaa taagttttgt attctgctgt tcttatgtgg actgttctct 60
aagtgtcaat tgggtcacgc aggttgatgg tgaagttcac atctactatg tcctttctga 120
ttatccactt gttctatcaa atattgagag aatattggaa atctccaacc attatactgg 180
atttgtctgg atagtttttc aatcctatga acattcttaa gctttgttct gagatgcagc 240
taagttcctt ggaaacagtt ttgtgccctt aagtcttgct tttatgattt gtttggtggg 300
tgtcgagtag tgctcagtgt agtgctaacc attccccaca actgaggaat gaacgcctgg 360
gtattttaac ctatgcctta tgagttatga nttttnctgt ctgcttggt 409

<210> 191
<211> 406
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(406)
<223> n = A,T,C or G

<400> 191
gccgccgcca tgggggcctg cctgggagcc tgctccctgc tcagctgcgc gtcctgcctc 60
tgcggctctg ccccctgcat cctgtgcagc tgctgccccg ccagccgcaa ctccaccgtg 120
agccgcctca tcttcacgtt cttcctcttc ctgggggtgc tggtgtccat cattatgctg 180
agcccgggcg tggagagtca gctctacaag ctgccctggg tgtgtgagga gggggccggg 240
atccccaccg tcctgcaggg ccacatcgac tgtggctccc tgcttggcta ccgcgctgtc 300
taccgcatgt gcttcgccac ggcggccttc ttcttctttt tcaccctgct catgctctgc 360
gtgagcaagc agccgggacc cccggcttgc catccanaat gggttt 406

<210> 192
<211> 396
<212> DNA
<213> Homo sapiens

<400> 192
ctcaccggtg gctacaacct ggccagcgtg agcgtgtggg acctggcggc gccctccctg 60
catgtgaagg agcagttgcc ctgtgcaggt ctcaactgcc aggccctgga tgccaacctg 120
gatgccaacc tggccttcgc cagcttcacc agtggtgtgg tcaggatctg ggacctgcgg 180
gatcagagtg tggtcaggga cctcaagggt tatcctgatg gagtcaagag tatcgtggtc 240
aagggctaca acatctggac tgggggtccg gatgcctgtc tgcggtgctg ggaccagagg 300
accatcatga aacctctgga gtaccaattc aagtctcaga taatgagcct gtcccacagc 360
ccccaggagg actgggtgct gctggcatgg caatgc 396

<210> 193
<211> 385
<212> DNA
<213> Homo sapiens

<400> 193
ggcagttgac cgaaccggaa agtggcagga gttggagtac ccgagccccg cttaccctgc 60
ctttgcatgt gggtcaggat attgatctcc aaggacatcg tcaagtggct ggcaagcaac 120
tcggggaggt taaagaccta tcagggtgaa gatgtaagca tgggcatctg gatggctgcc 180
ataggaccta aaagatacca ggacagtctg tggctgtgtg agaagacctg tgagacagga 240
atgctgtctt ctcctcagta ttctccgtgg gaactgacgg aactgtggaa actgaaggaa 300
cgaaggtctg acacaggaac tttgagaaga cgtgacagca atcccttcac cttttgaatt 360
gtcatggagc ctatcaaaag acaag 385

<210> 194
<211> 402
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(402)
<223> n = A,T,C or G

<400> 194
agtttcttgt gttactattt tgtcattgaa gagctcttta tatattttgg aatgtaaatt 60
ctcgatgtgt taaacatttt tctcacgatc tggcttgctt tgatttaaaa attttttttta 120
tttcaataat tttgagttat aggtggtttt ggttacatta atgagttctt ttgtggtgat 180
ttctgagttt ttaggtgtac ctgagcagtg tacactgtgc ccaatatgta gacttatccc 240
tcattctttt tttttttttn naaatnggcc tttgcccccc agncnggaga atnnngggan 300
aatntggnnn acgnccnctn cnttnggggg ntcagganat cttctncnag aacctcngcc 360
ctcttgaggg ggnantttca nnagggngcc ccctnntggg tt 402

<210> 195
<211> 362
<212> DNA
<213> Homo sapiens

<400> 195
aggatggctt gagcctggga ggtcaagact atagtgagct gtaatcatgc tactgcactc 60
cagcatggtt gacagagcaa gatgctgtct aaaaaagaat acttattgta aagtttgggt 120
acaggaataa tgaagtcatt gatagtttat gaacaggcta tgaagttgat gcccaaaaga 180

aataaacagt ttgtaaatta ataacttatt ttgagttgtg acaagacaat gttgaaagtg 240
atgcatgaag cggcaggcag accatccaca tcagttttac agaaaaaaag ttaatcttgt 300
tcgtgctgca gtgaagagaa cagcaaacag gagaaacaat agtcaggaat tcaataatag 360
cc 362

<210> 196
<211> 404
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(404)
<223> n = A,T,C or G

<400> 196
acacacacac acaacacaca cacacacaca catgcacata cagactcggg cccaaaaaaa 60
tgtgtcccct tagcaggttt agccttccac ccaagatgta agagaggcct ggtcagggga 120
gaatttgtct tgtgttgttg ttcgttcatt ttcagaaaag tagcaggcaa gtccttgttt 180
aatgtaaggt tgtttttggt tgatggcatg tgaattgtcc cttcagcctt gctgagcatc 240
actcatcaca acaaacaaga gctatcctaa gtagtttgct aatacagcag tttaaggctc 300
aaaagcatta aaggacaata acatctaata cagttatacc actgnactgg catgacttac 360
tttcacacat attatctggg ngngngggga atcagtaatc catt 404

<210> 197
<211> 396
<212> DNA
<213> Homo sapiens

<400> 197
cggagggttc tgccgcacgg catgggccgg ggcctcttga cccggaggcc aggcacgcgc 60
agaggaggct tttctctgga ctgggatgga aaggtgtctg agattaagaa gaagatcaag 120
tcgatcctgc ctggaaggtc ctgtgatcta ctgcaagaca ccagccacct gcctcccgag 180
cactcggatg tggtgatcgt gggaggtggg gtgcttggct tgtctgtggc ctattggctg 240
aagaactgga gagcagacga ggtgctattc gagtgctagt ggtggaacgg gaccacacgt 300
attcacaggc ctccactggg ctctcagtag gtgggatttg tcagcagttc tcattgcctg 360
agaacatcca gctctccctc ttttaaccag cttttt 396

<210> 198
<211> 407
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(407)
<223> n = A,T,C or G

<400> 198
atgaatttga agatgaagaa atgctggatg aagaaggtag aaccaggtta aaattaaagg 60
tagaaaatac tataagatgg aggatacgcc gagatgaaga aggaaatgaa attaaagaaa 120
gcaatgctcg gatagtcaag tggtcagatg gaagcatgtc cctgcattta ggcaatgaag 180
tgtttgatgt gtacaaagcc ccactgcagg gcgaccacaa tcatcttttt ataagacaag 240
gtactggtct acagggacaa gcagtcttta aaacgaaact caccttcaga cctcactcta 300
cggacagtgc cacacataga aagatgactc tgtcacttgc agataggtgt tcaaagacac 360
agaagattan gaatcttgcc aatggctggt cgtgatcctg aatgcca 407

<210> 199
<211> 371
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(371)
<223> n = A,T,C or G

<400> 199
gaagacgaga cgcaccccaa catcgacacg gccagtctct tccgctggcg gcatcaggcc 60
cgggtggaac gcatggagca gacctctatg aaaatgatta ncccngnntg ttangtgtgn 120
tttaanaanc accatgntgg ntatgactat tttatctatt cagantcgcn nattgntntt 180
nncaagaaan gctnnatcct gttcttataa tgacatttgn agtgttgana taggnttttt 240
ntnntcatan aacagnngng atcanttttc tcttgantna ctcnnttnat ttctttttca 300
cntngngana tttcatgant nncanncntc tnanaannaa ntctttgnga nnngcnnntn 360
attnatngtg c 371

<210> 200
<211> 447
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(447)
<223> n = A,T,C or G

<400> 200
gaaaccnnna actctanaat acaagctact tgttcttttt gcaggatccc atcgattcga 60
aagaaagtag gtaaaaaaag aaaagggtag ataatctttc gtatgcaaac ttttccctta 120
tattttgtct ttctttcctt tttgacttta gtagcatcct ccacacattt gtgtgcctga 180
tttgaaanga agccgganca cccaccnngt ttnttntttt nngaattaaa acngganctn 240
acgccncang gcccacttgc nnannggan cnnnccccccc gcnctggagt tcctncattt 300
tacnccccaa canggnnncc ngaccctgnn ncnctnanga ngatcgnccc ntcaaattcc 360
acnaaaaaan cnngttttnt tttccaaaag cccccanacg ngngggnnnt caaaggtnng 420
aactttcctn ttgnngaanc nggtccc 447

<210> 201
<211> 406
<212> DNA
<213> Homo sapiens

<400> 201
ctcccccagc actgaggagc tcgcctgctg ccctcttgcg cgcgggaagc agcaccaagt 60
tcacggccaa cgccttggca ctagggtcca gaatggctac aacagtccct gatggttgcc 120
gcaatggcct gaaatccaag tactacagac tttgtgataa ggctgaagct tggggcatcg 180
tcctagaaac ggtggccaca gccggggttg tgacctcggt ggccttcatg ctcactctcc 240
cgatcctcgt ctgcaaggtg caggactcca acaggcgaaa aatgctgcct actcagtttc 300
tcttcctcct gggtgtgttg ggcatctttg gcctcacctt cgccttcatc atcggactgg 360
acgggagcac agggcccaca cgcttcttct ctttgggatc tctttt 406

<210> 202
<211> 400
<212> DNA

<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(400)
<223> n = A,T,C or G

<400> 202
gaaggaggtg gtggctgcgt tgggctccgg gaagccgttc gggctggggc tgtcggccgc 60
ggggcggagg cactcgcgcg gggggtaatt cggggtctgg gttctggtgc cgcgcagctt 120
tccccgtcta aaagttggtt ttaattggtt gcccacagga ttgacttggc ctctacttct 180
tgttaaggaa attcatctct tgttttatca ggtgtgtgtg gtttcagcgc agcatggctg 240
tggtcatccg tttgcaaggt ctcccaattg tggcggggac catgcacatt cgccacttct 300
tctctggatt gaccattcct gatgggggcc gtgcatattg tanggggcga actgggtgag 360
gctttcatcg ttttttgccn ctgatgaaaa tgcaaggctt 400

<210> 203
<211> 404
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(404)
<223> n = A,T,C or G

<400> 203
gtgcattttt agtagagatg gggtttcacc atgttggcca ggatggtctc aatctcctga 60
cctcgtgatc cacccacctc agcctcccaa tgtgctggga ttacaggtgt gagccaccac 120
acctgggcct ttttatttct ttttaatttt gtgtggactt caatggtaga agttatagtt 180
gatttgacca gaaaggggaca tgtgaaaaac cttcctaaaa tatttccttt ttttttcttg 240
tgctgtttgc tctatctgta atcattagta ccccccttttc tatgttcatg ttagttttgc 300
tccttctgtg tttttttctg aaccatatcc atgttgctga cttttccaaa taaaggtttt 360
cactcctccn ntaannannc anacacccan cntaanntgg aaaa 404

<210> 204
<211> 413
<212> DNA
<213> Homo sapiens

<400> 204
ccaaggtata tcttaaatgt acttgattga tgtctcatgt ctccctaaaa tgtataaaac 60
caaactgtgc tctgactacc ttgggtacat gttctgaggg tctcctgaag gctgtgtcac 120
aggccatggt ctttcatatt tggcttaaaa caaatctctt caaatatttt atgtagtttg 180
actcttttcc tcaatagaac tcatcattta accagttaag tattttgagt tagtttggga 240
ttaaacacga gagttttgac agggagctga aacaatagta gtttcatcaa aagttgatgc 300
tatctacgta gatccagaca tgataagata cattgatgag tttggcaaac cacaactaga 360
atgcagtgaa aaaaatgctt tatttgtgaa atttgtgatg ctattgcttt att 413

<210> 205
<211> 483
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature

<222> (1)...(483)
<223> n = A,T,C or G

<400> 205
ttgttggcct cnanaaacaa gctacttgtt ctttttgcag gatcccatgc agaggactat 60
ttctctttct tcctctcatt acattcataa acaatagcca gagatgcttt gactatctca 120
gttctgttct gattatctgt tgctgtatgt tccacagtga gcaggtctat gcaaacctaa 180
cctcaaaggc tgagggagtt gagaggctga agaaagagac tgacaaatgc agtttctctg 240
agaggaacgt ttaagagaaa tttaggaaca gaagccgtgt cttgggatgg cctctagaca 300
gtggatcccc atacctgccc tccagagagt attccttatt tagcaagctt tttttggtaa 360
aatgtgcaac tggtcatgtc ttcaaccctc ttgtgaaact caccactggg gaagttaagt 420
taagtgtttt tatgagggat tatctatgct acaggcattg cttctttatg aggggttatt 480
tat 483

<210> 206
<211> 416
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(416)
<223> n = A,T,C or G

<400> 206
tctttatcca ttttgaatta atttttgtat gtggtgtaag taagggtccg acttcattct 60
ttttcacgtg gatattggat ttcccagtac catttgttga aaagactgtc ctttcctctc 120
tgtatagtat tggccccctt gtcaaacacc atttgactag aaatgcatgg gtttattatt 180
gggctatcta tattttgttt cattggttta tatgtctttt tatgctggca ccattgttgt 240
cttgattact atttgtattt aagtatgttt tgaaatcagg acatgtaagg cctccaactt 300
tgntgntctt tttcaagttt gttttggctc tatggggcct ttgagattcc atatgaattt 360
aaggataggt tttcctgttt ctgcaaaaat gccattggga ctttgacagg gatttg 416

<210> 207
<211> 416
<212> DNA
<213> Homo sapiens

<400> 207
gtgggccgta ggggcgacat tgttgccgtt ttctttcccc ccccagtccc ggggatggag 60
atgtcgggac tcagcttttc agagatggag ggctgccgta acctacttgg cctactggac 120
aacgacgaga tcatggccct atgcgacacc gtcaccaacc gcctggtgca gcctcaggac 180
cgccaagatg ctgttcatgc aatattagca tacagtcaaa gtgcagaaga acttctgagg 240
cgtagaaaag tccaccgaga agttatattt aagtacttgg caacacaggg gattgttata 300
cctccagcta ctgaaaaaca caatcttatt cagcatgcaa aagattactg gcaaaagcaa 360
ccacaactga aattgaagga acgccagacc agttccaaga cagaggacat tcacct 416

<210> 208
<211> 397
<212> DNA
<213> Homo sapiens

<400> 208
gttaagatga acagtctgtg ctaacagtaa accagtatca ttaaataaaa caaaaggttc 60
ttgtaattgt aggcatcaaa actgctatta catgcattta gaaaccaaga tacaagtaaa 120
aatactagta atttgtcatt taagtagctg gaatctattg tatattttca aggccttaaa 180

agatttcctc ctgactctgt agctgccttt ggtgataggg tttcctttat tttagtgttt 240
tattttaaaa tgtaaatagg attccaagta tggatataga gtttcctttc ttttagtatt 300
taattttaaa atgtaaatag gatttcaagt atggatcaga agcctgttct tttatctaaa 360
aaaatttttt aaataatctg aaataatgat taagagt 397

<210> 209
<211> 406
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(406)
<223> n = A,T,C or G

<400> 209
gtgggccgta ggggcgacat tgttgccgtc gtttttcccc ccccagtccc ggggatggag 60
atgtcgggac tcagcttttc agagatggag ggctgccgta acctacttgg cctactggac 120
aacgacgaga tcatggccct atgcgacacc gtcaccaacc gcctggtgca gcctcaggac 180
cgccaagatg ctgttcatgc aatattagca tacagtcaaa gtgcagaaga acttctgagg 240
cgtagaaaag tccaccgaga agttatattt aagtacttgg caacacaggg gattgttata 300
cctccagcta ctgaaaaaca caatcttatt cagcatgcaa aagattactg gcaaaagcaa 360
ccacnactga aattgaagga aacgccagag ccagttacaa agacag 406

<210> 210
<211> 401
<212> DNA
<213> Homo sapiens

<400> 210
cacttgcaca ctcaaagcca cattggactc atttttctg ctacctttat aaaccttcaa 60
actgttcaag agtcaatggt atgtatcatc ttccgttatc aatcatcatg ttttgttttg 120
tttggtttgg tttggtttgg tttggttttt gacaaagtct cgctctgtcg cgcaggctgg 180
agtgcagtgg cactgtcttg gctcactgca acctcccccct cctgggttca agcgattctt 240
ctgcctcagc ctcttgagtg gctgggatta caggcgtgtg ctactacgcc tggctaattg 300
tatttttagt agagatggga tttccactgt gttacccagc ctggtctgga acttctgacc 360
tcaaatgatc cacctgcttt ggactcccaa agtgctagta t 401

<210> 211
<211> 412
<212> DNA
<213> Homo sapiens

<400> 211
gggtgaccaa gtagggcctg tgacaccagg gtggcgcagc tttctgtgtg atgcagatgt 60
gtcctggttt cggcagcgta gccagctgct gcttgaggcc atggctcgtc cccggagttg 120
ggggtacccg ttgcagagcc agggacatga tgcaggcgaa gcttgggatc tggccaagtt 180
ggactttgat cctttgggca gatgtcccat tgctccctgg agcctgtcat gcctgttggg 240
gatcaggcag cctcctgatg ccagaacacc tcaggcagag ccctactcag ctgtacctgt 300
ctgcctggac tgtcccctgt ccccgcatct cccctgggac cagctggagg gccacatgca 360
cacacagcct aactgcccca gggagctctg ctgccttgct ggcctgcctt cc 412

<210> 212
<211> 418
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(418)
<223> n = A,T,C or G

<400> 212
gtgagagagg atgtgtgctg ggccttggag gaagggggcc gagaccgggc cttacttctg 60
taacgatact gtgaggcatc ggaaggccag cctgttgtgt ccgttttgaa ggtcggtggg 120
ctagactggc tggccttcta ggggtgtgga gacttcccaa ctctgccctt gtgctttcct 180
ggaatcccca atatgcctgt agtcccagca ctttgggagg ctgaggcggg cggatcatga 240
agtcaggaga tcgagaccat cctggctaac gtggtgaaac cccgtctcta ctaagaatac 300
aaaaaaaata ttaacccggc atggtggcag gcgcctgtag tcccagctat ttgggaggct 360
gaggtaggag aatggcgtga acctgggagg cggagcttgc agtgagctga nattgtgc 418

<210> 213
<211> 383
<212> DNA
<213> Homo sapiens

<400> 213
cccttgatgc tccaccaagc accagcacaa tggatgatga aggttatccc aggcctcatt 60
cacacttgct ttcctggggt tacagtcagc tgatccttca tctaattaaa cttcctgcag 120
attttataac caaagagaaa atgacagaca tctgcaggtc ttgtggtttc tggcctggat 180
atctaattct ctgtttggag ctggagagaa gaagagaggc cttcaccaat attgtgtatc 240
tgaatgatat gagcctgatg gaaggggaca atggttggat cccagagacc gtggaggaat 300
ggaagcttct ccttcatctc atacagagca agagcacgag gccagccccc caggagtcac 360
taaatgggag cctcagtgat ggg 383

<210> 214
<211> 370
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(370)
<223> n = A,T,C or G

<400> 214
ctctcttgag tgcgtctccc tggccagtta tggcctcgct ctgctgcatc cccagggctt 60
cgaggtcgca ctgggtgctc acgtggtggc cgatgtgggg canagcgctg ancanccaca 120
ggctnatatg ncagnaccat ctcngctacc tantnacntn cngggncnnc naatcnnntt 180
atctggggga tgggcannct ctgnaacgct nncagngact ncnggtgttn ancnactttt 240
ntttacccca atgacnatac ccgctgntca catgganacc cnaatanaag nttntacnng 300
gnaaacccna atncnanaac tnttanantt gnggagtact ttanngantg accaanacng 360
anaacagggg 370

<210> 215
<211> 440
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(440)
<223> n = A,T,C or G

<400> 215
gaaactcntn nacncntana caagctactt gttctttttg caggatccca tcgattcgtg 60
gaaagttgat gagcatcttt tcctgtgctt attaaccatc cgtttatctt ctttggtgaa 120
acgtctagtc aaaaattctc tctcagtcat atgatttgca actataaatt tttcccagtc 180
tctggcttgc cttctcattt tcttaatagt gtcccttgga atataaacat tttaattntg 240
ntaaanccac tttaccaatt ncncnttnta tggncaancn ntaactgttn nggnnntnna 300
ccnttntttt tnttnngcct acannncnnn cattgncnnc nngnttnnat nntnnnanan 360
ncccncccnc atatnnnntt ttttnttatt naggctttat ttttttnaaa aaaannnngt 420
ntattttncc ccnctggttt 440

<210> 216
<211> 414
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(414)
<223> n = A,T,C or G

<400> 216
gttgcctggc agcagacggg caagcctgga cttaggcggc gcgcaggacg gtccgacttc 60
gtgcggaggc ctccctgagg tccgggtcct tgcggccact gcggccactg aagcggcggc 120
ggcggctggc ccatgaggaa gaagtccagc ccatgctatt tcntgttccn tagtnagnna 180
aangctnctc cgtacgacgc nggattcgcg natcnatant ttctaanaga agaaagggag 240
gccacatatn gctnnacaan gcactataca aaccctgang attaangana ncanctgtat 300
gctgagaatn ataccgccac gaaaaaatag gacnataana nnntggttat gttnctgtgg 360
ncaacnccaa atangagaaa anatcnattt actcagatta agtgacgntg atga 414

<210> 217
<211> 420
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(420)
<223> n = A,T,C or G

<400> 217
gacggacggt agccactctg caccagactc tcatccccac ggcctcaggt ggcccccagg 60
aaggctctgg caatcaaact ttcattacca gttcgggtat tacttgcact gactttgaag 120
gcctaaacgc cttgattcag gaggggacag cagaagtgac agtggtgagc gatggaggcc 180
agaacatcgc agtggccacc acagcgccac cggtcttctc ctcctcttcc cagcaagaac 240
tacccaagca gacctactcc atcattcaag ggcagccca tccagctttg ctctgtcccg 300
ccgactccat tccagattag tgcttaaaaa aacaaaagga gtgggggaaa ggaattgaga 360
aaaagaaatc ttaaagtaga attctctaaa agggttgctc ttaatggttt ctttgntttg 420

<210> 218
<211> 192
<212> DNA
<213> Homo sapiens

<400> 218
gtgactgtat ggtagagact gtgatctggg aactttttgc tgtacaaatc tgtttaaaaa 60
aaaaaaagta actcattgaa ttaacttgca ggggggggtt tgattctttt ttaaactggc 120

ttcagcattg ggcagtttaa aaataagtaa gtaacttaca taaatcttca attgtatgaa 180
aaaaaaaaaa aa 192

<210> 219
<211> 400
<212> DNA
<213> Homo sapiens

<400> 219
gtggttttca acctctcagt ttgtggtaat ttgttaacag ccccaatagg aaacaactac 60
tcatgcatcc aggggacacc tcatgaacca cccgatctca ctaagttctg ccttcctgtg 120
accacattgc tatttcaggt ccctgtcagc acttataaat gtggctgcct cttgctaggg 180
tggcctttat agcacatctg aaacagcact ccttggcttt ttgattgtta tgtttttaga 240
gacagggtgt tactgtcacc cagtaggggt gacaacatct ctctacactg gagtacagtg 300
gtgtgatcat agctcactgc agccttgaac tcctgggttc aagtgatcct cccacctcag 360
ctcctaagta gctgggtcta caggagtgca ccacttcacc 400

<210> 220
<211> 399
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(399)
<223> n = A,T,C or G

<400> 220
ggaggcgctg ggattacagg catgagccac cgcatctggc ctggccttcc ttgtttttgt 60
agcttcctgc ctgtcccccct atagatttta aacaatgaat ccaacttctg taataattat 120
gggaccattt aggttttctg tttcttcttg agtaattttt ttattgtggg aaaaaataca 180
taacacaaaa tttgccatct tttttttttt ttnaaaanng nnttnntttt ntncccnngn 240
nngggggnca gggnaaaann nttngaaccc naaannncng ggnnnaaaaa anttttnnng 300
cntaacccnc cggggnggng ggnnttntgg gnttnccccc cctnccccnn naaattttaa 360
ntaaantttt tttttgnaaa naaannnnnt ttnncccccc 399

<210> 221
<211> 392
<212> DNA
<213> Homo sapiens

<400> 221
taaccacaag gactgtatgt taaacattaa acctacattt aaataaccaa atcatatttt 60
cttgaatcca aaattattct gaaaaacaaa acaaagaaat ttaaagtctc aaggctccta 120
acgtcacaac aatgcttctg taaaaatttt cagctattta ggggggaaat actagttcta 180
gtaagttttc caaaataaag atgtaatgaa aaatagtatc tcagagtcca tcccagtctt 240
aagattttaa tactctacat aaaccattct tgtaggcatt ttgaaaatat gacctactat 300
gttaaaacag ggatattctc aaggatctaa aactatcagg caggttaggg attccaaact 360
aaacttgggc aatgagccta agcaaatttc aa 392

<210> 222
<211> 398
<212> DNA
<213> Homo sapiens

<400> 222

gaagaaataa ccaggtattt agtcttcctg cagatcaaaa gggatctcta ccatggccga 60
ctcctctgta aaacatcgga tgctgccttg ttagcagctt acatccttca agcggagatt 120
ggggattatg actcagggaa acaccctgaa ggctacagct ccaagttcca gtttttccct 180
aaacattcag agaagctgga aaggaaaatt gctgagattc acaagacgga actgagtggt 240
caaacaccag caacatcaga gctgaacttc ttaagaaaag cacagacatt ggaaacatat 300
ggagtggatc ctcacccatg taaggacgtg tcaggaaatg ctgcatttct ggccttcact 360
ccttttgggt ttgttgttct tcaaggaaac aagagggt 398

<210> 223
<211> 376
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(376)
<223> n = A,T,C or G

<400> 223
ggagtgcagg tggaaaccat ctccccagga gacgggcgca ccttccccat gcgcggccag 60
acctgcgtgg tgcactacac cgggatgctt gaagatggat agaaatttga ttcctcccgg 120
tactgaaaca agccctttaa ntttatncta ggcangcagg nggtgatncn aggctgggaa 180
nanngttttg cccagatgag tgtgtaattt attgcntatt tgnttttatn tttttgctta 240
tggttattat tcttattttn tntatctnnt ntancatttt tctatttcnc tttgtttttt 300
ttaaatttgn tnacntttgn atttttttca ttntntgctn tttntttcca ntttgtnann 360
tttnttcttt ttttct 376

<210> 224
<211> 400
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(400)
<223> n = A,T,C or G

<400> 224
agcgcccggt cgcgcgccgg gaccggggtc cggtgcggag tgcccttcgt cctgggaaac 60
ggggcgcggc cggaaaggaa gaattcgcgg ccgctatcta cgtagatcca gacatgataa 120
gatacattga tgagtttgga caaaccacaa ctagaatgca gtgaaaaaaa tgctttattt 180
gtgaaatttg tgatgctatt gctttatttg taaccattat aagctgcaat aaacaagtta 240
acaacaacaa ttgcattcat tttatgtttc aggttcaggg ggaggtgggg gaatttcaac 300
tnttcntgnc tnccntcttt gngaactncc acttngaana nananannccc nntatgnggg 360
atgatgnatc ctcangnttg ntnnnccngn nggttnattt 400

<210> 225
<211> 381
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(381)
<223> n = A,T,C or G

<400> 225
gaaatggatt ccaggcgtgt gcctcgagac aagctggcct gcatcaccaa gtgcagcaag 60
cacatcttcg atgccatcaa gatcacctag aacgagctgg cgtcagcaga tgacttcctc 120
cccaccctca tctacattgt tttgaagggc aaccccccatg ccttcagtct aatatccagt 180
atatcacgcg cttctgcaat ccaagccgac tgatgactgg agaggatggc tactatttca 240
ccaatctggt gagtaagtga gttcttggcg ttgtggagaa ggactaggaa gggtgnggtt 300
ttggggngnn nnnnnnnnct nnnnnnnnnn nnnnnnnnnn ngctnntnnn nnnnanngnn 360
nnnnnnnnnn nnnnntnctt t 381

<210> 226
<211> 402
<212> DNA
<213> Homo sapiens

<400> 226
gagcccgtca agaagcgggg acgcaagggc cggggccggg gtcccccgtc ctcctctgac 60
tccgagcccg aggccgagct ggagagagag gccaagaaat cagcgaagaa gccgcagtcc 120
tcaagcacag agcccgccag gaaacctggc cagaaggaga agagagtgcg gcccgaggag 180
aagcaacaag ccaagcccgt gaaggtggag cggacccgga agcggtccga gggcttctcg 240
atggacagga aggtagagaa gaagaaagag ccctccgtgg aggagaagct gcagaagctg 300
cacagtgaga tcaagtttgc cctaaaggtc gacagcccgg acgtgaagag gtgcctgaat 360
gccctagagg agctgggaac cctgcaggtg acctctcaga tt 402

<210> 227
<211> 393
<212> DNA
<213> Homo sapiens

<400> 227
gagctatggc ggctttggct cgcaggatcc tcagtaaacc tattgaagta caagttggag 60
gcaggagtgt ggtttgctca gatgtggagc aacaagtgat tgtgattgaa gaagaaaaga 120
aattcttgaa gttacttgag cttctaggcc attatcaaga gtcaggatct gtcattatat 180
ttgtggataa gcaggaacat gctgatggtc ttcttaagga tttaatgaga gcatcttatc 240
cttgcatgtc tcttcatgga ggcattgatc aatatgacag agatagcatc ataaatgact 300
ttaagaatgg gacctgcaaa cttcttgtgg ctacctctgt tgctgccgag gctagatgtg 360
aaacatctga ttcttgtagt aaattatagc ttg 393

<210> 228
<211> 382
<212> DNA
<213> Homo sapiens

<400> 228
gtgaatcatt acctagcatt tcagtttttt gcagaagaat attatccctt ctcagaggtc 60
ctggcctatt tcactttctg cctgtggata attccgtttg cgtttttgt gtcactttcg 120
gccggggaga acgtcctgcc ctctaccatg cagccaggag atgatgtcgt ctccaattat 180
ttcaccaaag gcaagcgggg caaacgctta gggatcctgg ttgtcttctc cttcatcaaa 240
gaggccattc tacccagtcg tcagaagata tactgacccc catgcaggca ggatgtgggg 300
ggcaagatca ggagagtcag gcccctgggc ctctatgcca ggtggggacc agaagtcggg 360
aaggcaccta ccacctgcct gg 382

<210> 229
<211> 381
<212> DNA
<213> Homo sapiens

<400> 229
ggggaactat cactgtacat aagactgatt cttccaatga acctccaaag acatttactt 60
ttgatactgt ttttggacca gagagtaaac aacttgatgt ttataactta actgcaagac 120
ctattattga ttctgtactt gaaggctaca atgggactat ttttgcatat ggacaaaccg 180
gaacaggcaa aacttttacc atggaaggtg ttcgagctat tcctgaactt agaggaataa 240
ttcccaattc atttgctcac atatttggtc atattgcaaa agcggagggt gatacaagat 300
tttggttcga gtgtcttatt tggaaatata taatggaaag ttcgtgacct tttgggcaag 360
gatcagacac aaaggttaga g 381

<210> 230
<211> 416
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(416)
<223> n = A,T,C or G

<400> 230
aattcggcac gagcccatct ctactaaaaa atacaaaaaa aaattagcca ggcgtggttg 60
caggagcctg taatcccagc tacctgggag gctgaggcac aagaattgct tgaacccaag 120
aggcagaggt tgcagtgagc cgagatggca ccactgcact ccagcctggg caacagagcg 180
agattctgtc tcaaaaaaaa aanggaatnt gagggggnaa aaaaaantna anggngccac 240
atgctcnttc ntgccacngg aacttttnat atgntttccc canttcnttt tttgtccccc 300
antttnacat tnttaactcc ccaatcntnn ttntttttg accgagncaa acccctactn 360
tgggctnttg ngccanactt tcctnaggna aaattttnca ntttgggggg ggtatg 416

<210> 231
<211> 396
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(396)
<223> n = A,T,C or G

<400> 231
aattcggcac gaggtccagg agttattttg cagtgagccg agattgcact actgcactcc 60
agcctgagtg acagagcgag actctaaaaa aaaaaanaaa aaaaaaannt nnggnnanan 120
aancgggcnn atccaaaaan tcccaccccc ttttngggnn caanantnnc ccaggnaacc 180
gggggccaaa ngggnaaccc naaaangnan cnggcaaatn gntaaaggct nagggggggnc 240
anctntnaaa aaaaantcca gggggncccg gncnnggnag gnccccannn tttngggngn 300
tttncntcca ggnnctttnt tnggtcctgn cngggaannt naaaaaaaaa tntcnttgnn 360
nttttggcag gaggaagnna aanggncccn tttgaa 396

<210> 232
<211> 421
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(421)
<223> n = A,T,C or G

<400> 232
gtgcacctct tcattcagta aagggaggtc accaagagaa tttgatgaac cttaccttca 60
aagttcctgg gcacagtggc tcacacctgt aatcccagag ctttgggagg ctgaggtagg 120
aggattgctt gaacccagga gttcaagttt gcagtgcgct atgattgtcc cactacactc 180
tagcctgagc aacagaccaa gaccgtattg ccaaaatacc aaaaaaaaaa agttcatgga 240
gagccacnta nacntganac cacncttcag cctgaatttt tntaaaacac agttgtntca 300
agcanattac tccacacgtt tttccacact gaactctcca gnccttccac ttccttaatt 360
ctgcaaatgg aggggggggg gactcttggg aaactactcc tgtaaaattg aagttggagg 420
g 421

<210> 233
<211> 386
<212> DNA
<213> Homo sapiens

<400> 233
atcgcttgaa tccgggaggc ggaggttgca gtgggccgag ttagcaccat tgcactccag 60
cctgggcgac agagtgagac tccgtctcaa aaaataataa atgaagtaac aatggtgaag 120
tttgaagtaa ctcaggtgaa gtaacaccta agtggaaatt ccatactcca ctcagtaaac 180
catgcccggc ccccctcaaa tggttttatc tgtcacactg gtgctcctgc aatggacaaa 240
ggagacgttt cctgtaggac cagcatctct ttactcaggt tttcaatct tggaactgct 300
gacattttgg gccaagtaat tctttgttgc agggactgtc ctgtgcattt caggatgttt 360
aacagcatct ttgtcctcta cccatt 386

<210> 234
<211> 396
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(396)
<223> n = A,T,C or G

<400> 234
gaaaaaagta tgaataagtt cataccaata atacctgtct tgctgggtgg ttataaaaga 60
gaattatgtc cagtacctaa cccagtgcct ggcaaaggta ctcaaatcct ggtggtgata 120
ttattaaagt ttaaaactta tcctggcaaa ngattccctt catannttca cccatnactt 180
ctattccagn gccccnttnt ncccacccca aaacacagtc gctgatctta ccntgccttt 240
gcnggcntnn gttattcaac tcccttctga cttgntaact ntnanctttg antcttntgc 300
tcnnanttgt nnncntcttg anatttannn nacntcgnnc cnnctcttat nncnctncct 360
cttactnatt ctactatatn tncnntncna tatctc 396

<210> 235
<211> 378
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(378)
<223> n = A,T,C or G

<400> 235
ttcctggcct gatatttcac tggggaccca tcatgattct gcaactattc tcgctcaaca 60
gaacattacc accttgagtt aaagaggcta agaagctaag gttaatcatt attaatgatt 120

caaggtgggc aaacaccatg tgggcacaat gcatcctttc atggattaat tactctccaa 180
tgattgtaca tttcattcct gctaccggtc tctattaccc tgcttttttt tttttcancc 240
tgaccagggg ggnaaancca ncnctntttt gccaaaanaa nattttctna gggagaaanc 300
atnnaancnn tttttttttn cccccaanna gtnncaggga ntnntanggg ggggttttgn 360
tngccngaaa aaaccttt 378

<210> 236
<211> 200
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(200)
<223> n = A,T,C or G

<400> 236
aattcaaggc ctcctcgagg gctttttttt tttttttttt tttttttttt tttttaaang 60
gggggncntt tttttaaaaa aaangggggn aaaaaaaaaa nnnnnanntn nnnncnaaaa 120
anttttnccc ccnttttttn ngggggnnnn tttttnnaan aaaannnnnt tnnttnnggg 180
tttttaaaa aaaaaaaaaa 200

<210> 237
<211> 393
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(393)
<223> n = A,T,C or G

<400> 237
aattcggcac gagggcacgt ggtaggcgtt tggtacatgg gaatcgctgt tggggtgtca 60
cctccccaga aagttctcgg cttcagtaag cgcgtcccct gccaggcgcc ctggcaatgc 120
agaggagtca ccgagctccg cctttgacca gcgtgcagct gggagagtga gatcagagac 180
cacagcagat cgtggcgctg tgatcagggg gtacactcaa gctgtgggtc ccttacccca 240
gccttgagat cccaggaagg cctgcagcct gaaacgggcc ttgaaaggtg cgtagtttct 300
ctgaaaagca tcacccaggt cagaatgaaa ggaaactctc tgtgcagacc gctgtatgtg 360
ggacctttga agacagtcaa atantgttca att 393

<210> 238
<211> 412
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(412)
<223> n = A,T,C or G

<400> 238
gggcatggtg gcaggcgcct ataatcccag ctactcagga ggctgaggca ggagaattgc 60
ttgaccccgg caagtgtagg ttgcacctag caaccactcc actgcactcc agcctgagcg 120
acagagcgag actctgtctc anaanaaaaa aaaaaagnnt ntanccccna gggttttntt 180
nggnccttgg aancnntngc cgcngggttt gnnnncnang ggtnngtngn nnnancccaa 240

annnaannnt tggcnttttt nnaanntnag nggggaaaaa aaaaaacccc ntnntcnttn 300
acccntttta taacccnggg annaannntn tatttttann gtngcnaann nnacttngtn 360
annngggggt tnacntgcan tttttnaccn acggaatttt ttttnttttt tt 412

<210> 239
<211> 411
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(411)
<223> n = A,T,C or G

<400> 239
aattcggcac gaggcataag taaggtttgt tcctggcctt ggtgaactga caaaggcgag 60
gaaagaatgg acagattttg gtaagtgtta aaataataac cagctggtgg tgaaccagtg 120
tcctgaacct tgtgcttaag tctcctcacc tacctgggct ccttaccctt acccgttaga 180
gggccgggtc ccatgtcctt gaagacctgg tctctctggg tggtcagtat gcagtagtat 240
ggcagtgtat aatttgatca ccctctatag tccccgtgga ttggagaaaa aatctgattt 300
aatgccacgt tccccctttc tacgattgga tgccacagat ggcacaggtg gagaagtcaa 360
gagactgaga aaagtcanac agttggcgac tcatcttcct caaatggtaa a 411

<210> 240
<211> 417
<212> DNA
<213> Homo sapiens

<400> 240
aattcggcac gagggcagac actgcacgtg ttctacagag aagaaagagg atgatggtaa 60
agcagactgc agtcttcagg cctggagcag agaagggaga gttcctgctc tagagaaaag 120
attttgccac gttggctagg ctgctctgga actcttgacc tcaggtgatc tgcctgccac 180
ccaacctact gggattacag tagccagtcc tgccagggtt ctggctgtgc cgggacagtg 240
aatggccact ccgtcccaga tgagctgcag gaagcgtttc gatgtcatgt ggagcaggag 300
ccgccgagtg attgatgggc cccagcttga atggaaagtc cagattccag caacacagct 360
taagagatga aggttgcttg agcaggaaat ccacccatgg cccaaagagg aaagatc 417

<210> 241
<211> 407
<212> DNA
<213> Homo sapiens

<400> 241
aattcggcac gagaaaaaat ggaaggaaca ggctcgggaa atggcagata ctgcatgtga 60
ttctgatgtc ctgcttcagc tggtgcttgt ctggctgggt gaagtgctag gtgtcattgg 120
ggactgtcca gagctagttc agcgctcctt cctggtggct agtgttctgc ctggccccga 180
tggcaacatt aactcaccta caagaaatgc tgacatgcag gaggagctaa ttgcctccct 240
agaggagcaa ctgaagctga gtggggaaca ttctgagtct tccactccac gacccagatc 300
atctcctgaa gagacaattg agcctgaaag tcttcaccag ctctttgagg gtgaaagtga 360
gaccgagtct ttctatggct ttgaagaagc tgacctagat ctgatgg 407

<210> 242
<211> 408
<212> DNA
<213> Homo sapiens

<400> 242
aattcggcac gaggacaggc acagctctgc tgtcagcact gctgtggggg tgactgtagc 60
cccagtctgc cctggtgttt ttctctcgct cttctccatg ccggcctttg cctctagact 120
gagaaaccgg ggttgactca agtggcacct gcaaaagtga tcatggcagt tcacttagcc 180
tgcaggtgac agggactgtg aatctagtcc ctggcgagcc tggaaagagg ggcaaggtag 240
aggctctggc tgccggggtt tctttggtga gtccgttcac tcggctggac acagacggat 300
caggaaagat tcctgttgct actcggctgg tggccagagg gagagaggac gtgtccgtaa 360
ctgaagcaag gtggataagc ttcgggaacg agcgaggcac agattctg 408

<210> 243
<211> 401
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(401)
<223> n = A,T,C or G

<400> 243
gatggcttaa tctgccctca gcagggatga ctcaacaccg ccctcaacag ggatgactca 60
gcactgcccc tcaacaggga tgactcaaca ggggatgact caacactgtc ccttatcagc 120
gatgacacaa gcaaggatga ctcagcactg cccctcacca aggatgactc agcactgccg 180
ctcaacagac atgactcagg gatggcttag tactgcccct cagcagggat gactcagcag 240
ggatgactca gcaccacccc tcaacaggga tgactcagca gggatgactc agcactgccc 300
tcaacaggga tgactgcagg gatgactcaa cactgccctc agcagggatg actcacactg 360
ccctcagcag ggatgactca acanggatga ctcancaccg c 401

<210> 244
<211> 398
<212> DNA
<213> Homo sapiens

<400> 244
ctgctggagg ccttgcagtc cggggctgcc ttccgcgaca gaagaaaaag gacaccgatg 60
ccaaaagatg ttcggcagag tctcagtcca atgtctcaga ggcctgttct gaaagtttgt 120
aaccatgaaa atcagaaagt gcagttgaca gaagggtcac gttcacacta caatatcaat 180
tgcaactcaa caaggactcc agtcgccaag gagcttaatt ataatctaga cactcatacg 240
tctactggga ggatcaaggc agctgagaag aaggaagcgt gtaatgtaga aagcaacaga 300
aaaaaggaaa cggaacttct tggctctttt tctaaaaatg aatcagttcc cgaagttgaa 360
gccctgctgg caagattacg agctttataa gttaaact 398

<210> 245
<211> 420
<212> DNA
<213> Homo sapiens

<400> 245
gtgagcccga aagaaaaaaa ttttctgtaa agtgaagaag gatgctggtt cctggggctg 60
ctctggggcc agaccttacc ctcctgctcg gggccactga aggcagagca gggcccgaga 120
ctgggccttg tggtgttacc gctgccttga gagcaagaga cagggctgac gtgcagaact 180
aggcaggctc caggcaagct tggcgtcagc gctggcagcc ttggtggcgt gggcacaggt 240
gacaggagcc tggtgaaggg ggtgagcaaa gcatccgggc tactgagctg catggccttg 300
ggcacttcag tgccctctct gggcctgggt gttttccttc tagccctgct gagtgcggca 360
ggtgggcttt acccctgaga ccgctgtgtc ttctaatgag aagccatcca atatgctttt 420

<210> 246
<211> 407
<212> DNA
<213> Homo sapiens

<400> 246
aattcggcac gagggtctga agactgaaag agtcgaatgg tttgttggca gggtgtcctg 60
gtggattggt ttctgtaagt tcagattctc ataaatcgtg tgagcgtcgc cgacacctct 120
gagataaaag ggcccctttc gactagcctc tgctgaaagg acctagaaga atcccttagg 180
atgaagctga gtcttaccaa ggtagttaat ggctgtcgcc taggaaaaat aaaaaacctg 240
ggcaaaacag gggaccacac catggatatt ccaggctgcc ttctgtatac caagactggc 300
tccgccccac acctcaccca tcacacgctg cataatatcc acggggttcc tgccatagct 360
cagcttacgc tgtcatccct agcagaacat catgaagtct tgacaga 407

<210> 247
<211> 377
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(377)
<223> n = A,T,C or G

<400> 247
atccgctggc ctctggaaaa ggattttggt ctgagatgct gggcgtgggg gacttctatt 60
acgaactagg tgtccaaatt atcgaagtgt gcctggcgct gaagcatcgg aatggaggtc 120
tgataacttt ggaggaacta catcaacagg tgttgaaggg aaggggcaag ttcgcccagg 180
atgtcagtca agatgacctg atcagagcca tcaagaaact aaaggcactt ggcactggct 240
tcggcatcat ccctgtgggc ggcacttacc tcattcagtc tgttccagct gagctcaata 300
tggatcacac cgtggtgctg cagctggcag agaagaatgg ctacgtgact gtcagtgaga 360
tcaaagncag tcttaaa 377

<210> 248
<211> 385
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(385)
<223> n = A,T,C or G

<400> 248
aattcggcac gaggcggcgt ggggttagac aggtaccggt cagattacgg tgacacaggc 60
ggcgtggggt tagacaggta ccggtcagat tacggtggca caggctgcgt ggggttagac 120
aggtaccggt cagattacgg tggcacaggc ggcgtggggt tagacaggta ctggtcagat 180
gcacgggctc cctaaacccc tgctgtggct tcggcagtaa agacaggacg cacccatgtc 240
acaagaggag cacaggcagg ggtgttggtg ttggggcagt cctnanggtc ttcagacccc 300
agcccccactc acacagcacc taggaangaa tgcagagtcc cangtgtcag cntggtgggt 360
nttnangggc tgtccttcct ggaag 385

<210> 249
<211> 428
<212> DNA
<213> Homo sapiens

<400> 249
tctttattga ctttttgccc taaattgcta ggtgtgaccc agcaatcttt taggaagaga 60
ttttacagtg gtgctttatt tatatcaata atccagtata gttaggctgt tcattcctca 120
taatagagta cataacagaa aagtgggact ttcacatttt catatttagg cacgttccaa 180
tttaattcca aaaatactct gtaattctac atctaaaaaa accgattccc taattcgaat 240
ttattggtac caaagctctc tttggctata gacaattaag agttgacctt ttaagttaat 300
gtatatgctt aaaaacagtt ttaggaaaat atttggtaga caaagagttt caactttaaa 360
tgttcactat gtcatttagt gccaacttta cggataggtt gctatctaaa taggcatttt 420
tagtcatt 428

<210> 250
<211> 428
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(428)
<223> n = A,T,C or G

<400> 250
aattcggcac gagataatct ggaacatcca acaactcaaa actgaagctg cctcctgtgt 60
gcccacaaga tgtgataagc accatacctg acaccagatt tgcaaagaag ctgctccact 120
gcacccatct tgctgcattt agattctctg tcctattgtt aatgcagata tagttgcaca 180
ttaaaaccta ttgtttgtag gccgggcgtg gtggctcaca cctgtaatcc cagcactttg 240
ggaggctgag gaaggagaat tgcttgaacc tgggaggggg aggttgcagt gagccaaaat 300
tgtgcaccat tgcactccag cctagacagc aagagcgaga ctccatatca taaaaaaacn 360
aaacannaca aaaaactatt gttngtattc tcgntttaag attgtcttat aaaaggtttc 420
tgtcagga 428

<210> 251
<211> 427
<212> DNA
<213> Homo sapiens

<400> 251
aattcggcac gagcagagat gagtgcagaa ttcagcttgg aggtcctgga aacttctagt 60
ttactgatgt ttatgctttt gctcatgcac ccacagttcc tgggacacag aatgctcacc 120
tgggggtttg taccccagcc aagaaggtgt cttcacagac tcccctcctt ttagcaactt 180
catgcagatg gagcttgggt ggatggatcc tggcacagtg ttcagaacag tggccctgcc 240
agtgtgtggg cgccgcttgt gcagagcccc tgtgggttct ggtcctcaag ggcaggggcg 300
ctcactgaca gcggaaccca tagtaccagc ccatctttgg tgggctgttt ccaccccatt 360
catccctgct tagctcttca taagacagcc tgtgctggca gaaaattgcc ccccagtcaa 420
gactaag 427

<210> 252
<211> 432
<212> DNA
<213> Homo sapiens

<400> 252
gtttaaagag agcatgctga cactggggaa ggaaagcaag actccaggaa aaagctctgt 60
tcctctttac ttgatctatc cttctgtgga aaatgtgcgg accagtttag aaggatatcc 120
tgctgggggc tctcttccct atagcatcca gacagctgaa aaacagaatt ggctgcattc 180
ctattttcac aaatggtcag ctgagacttc tggccgcagc aatgccatgc cacatattaa 240
gacatatatg aggccttctc cagacttcag taaaattgct tggttccttg tcacaagcgc 300

aaatctgtcc aaggctgcct ggggagcatt ggagaagaat ggcacccagc tgatgatccg 360
ctcctacgag ctcggggtcc ttttcctccc ttcagcattt ggtctagaca gtttcaaagt 420
gaaacagaag tc 432

<210> 253
<211> 436
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(436)
<223> n = A,T,C or G

<400> 253
aattcggcac gaggcagaat ttgtttggca taaactctct ggatccatgt tgtcagcaga 60
gagtttatgc caaacaaatt ctctgctgac aacatggatc cagattttgt ggagaggcga 120
cggattggtt tagaaaactt tctcttgagg attgcttcac atcccatcct ttgtagagac 180
aaaatcttct atctgttttt aacacaggaa ggtaactgga aggagactgt gaatgaaact 240
gggtttcagc tgaaggcaga ctccaggtta aaagcgctta atgcaacatt cagagtgaaa 300
aacccagaca agagatttac tgaccttaag cactatagtg atgaactgca gtctgcatct 360
ccatcttctt cgagtcagag ctagagtagc agatcgactc tatggtgtat ataaagnaca 420
tgggaattat ggccag 436

<210> 254
<211> 412
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(412)
<223> n = A,T,C or G

<400> 254
caactctgaa tcccagtttc tagtgagcac catgtgtaag acttgcttga tgtgtgtttc 60
atttgtttgt ttcattcatt gtatcaatgg tttcctctcc cactttgcct tctactccca 120
agtactgtca aaagatgatg taccttttcc atagtcatca ctcgccaaag gaataaaaac 180
ctggagtgtc agtctctata gtctgtgtga gcagcactcc catcctacaa agaattccat 240
tgccttgtaa ttatgatttg cgatagggta caatatgtac ccagatatca agtccaccgt 300
tggcgtccct cttccccctg caacaccgca angnggtgta cttnaaggag antttgggg 360
cagntncccn aantcaantg ccattgcttg cctgaacttg ctttaaanca ag 412

<210> 255
<211> 410
<212> DNA
<213> Homo sapiens

<400> 255
actttttgag gaactgccag ttttctaaag caggcgcccg caccatttga cattcccatc 60
agctgtgtga gggttccagt gttcccacat ccagtactta ctattttctg tctttttgat 120
tataggtatc tttgtgggtg tgaaatgata tctcattgta attttgattt gtttctaatg 180
actagtttca ttgagcatct tttcatatac ttaactggcc atgtgcccca attgctaaaa 240
cttagcactc tgttttgtga taatttccta gtttgcctcc tttgctaact agaatttctg 300
ggagcagaac ttatgctttt ttttttaat cttcatgacc ctgacagcag gacagcactt 360
ggtactaatg ggctctaaaa taattcaatt ggaaaaggaa tagtatcctt 410

<210> 256
<211> 421
<212> DNA
<213> Homo sapiens

<400> 256
cagcagtaaa tggcagctgc ccactcccgt gatcagaggg ctctgggtgc gagctgcagc 60
agggcgtggt ggaaactgcc atgagatgca ggaccctcca attatctagg gggccaggcc 120
catctcagag gagcagctcc agaggtgagc gcacaccact gctaattctg cagagggtcc 180
ggtctgactc ctacctccca cccagccaag gctctcacct gtgtaccctc tcctgtctct 240
gaggcttcca ggtgatggaa gtttatcctt tcccttgcct atttgcgtta tgggcggatt 300
tatgattgct ttttagcccg ttttatggaa atctttctaa gatgtactag gagcacctcc 360
tttttccaga tcaacgtaga agtgtcttgt aaacttcgat gactcggtgc tgtggaaaaa 420
t 421

<210> 257
<211> 411
<212> DNA
<213> Homo sapiens

<400> 257
ttagcaagca tcattatatt tttagaaatg ttttcttttc tccttgcccg tcagttagcc 60
aagcctccta ccactcactt tctgttgtgt agttctgatt ttccgaacag gtgtttagat 120
gatgaggggt tatattaaga aagtactaaa gaatacgtct tatcacgtga atcagtatct 180
ttttattcaa catggatgga gtgggagtgg agaccaatct gttttatatt cctgcaatct 240
gatgagggta agaaaaagtt catgctgttc atattagcta gccagcctct ttctctcttt 300
ccctcccttc cttctttctt ctttattttt tctttctttc ttttgctaat acctaattcc 360
ttatctcatt tttgggattt tgagagaata attttcatgt ggggcgacag a 411

<210> 258
<211> 409
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(409)
<223> n = A,T,C or G

<400> 258
aattcggcac gagggaggaa gaggcggtag ggggtacggg ggctggtccc agaagatggc 60
ggaggcgggg gatttctggt aggtcctact ttaggacaag atgtggtacc gttgaagcgt 120
cagtctttga ttcacagaca gttgagcttt tcagctggga agcctttcca ttttttttt 180
ttaacggntt tntganccctn tgaanccntg gcaaaaggan anacanagtc ccctggnccc 240
aaaaaggggg gcccatntnt ttcnttnnca ctanccaaag ggngaacttg atgattcgng 300
gagtagggct attttttatt ggagnatttc ttgcattang ggtaaattta cttcaaattc 360
aaaaaaatgg gccctntttn ccccgagggg gatgnaagca ttttttttt 409

<210> 259
<211> 426
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(426)

<223> n = A,T,C or G

<400> 259
tgaagaggag atcggtgacc tgggctcctt atgtgcctga aagagtttga gtttcctgtt 60
aactccaaat caacagtatt ttcaacaaga aatgtgcaat tgaaatcaag tgctgtttaa 120
gtgcagctag gatttccaca ggaagacact tgcagtgaac agagttatgg agcagcaaaa 180
acacagatct atttggaaaa agagaaaaca tatgcgttgt attttgcttc aattataaaa 240
taccatcctc tcaaaggtgg ttctaaatta caaaggactt tgatttctag gtagattctg 300
ggtagagact tcctttcata ttgaggcatt aatgacacct tttaacctgg gaagcaatat 360
gactggagtt gtactttgag aagattaatc aggtttggtt gcagaatgaa aganaagatg 420
aagcca 426

<210> 260
<211> 419
<212> DNA
<213> Homo sapiens

<400> 260
aattcggcac gagacgtaga gcatcagggg tttcttccag gtagggcttc acttagagtc 60
cctcctccat cagcaaatat agatgggttt tcacatcttc tctccataca tttatctctg 120
cttctgatcc acaaataagg gctgaaatgc aggtatctcc acagagtggt ttgtagaaac 180
catatggtcc aaatccattc ttggacaaga agcatttctc cagagttaac agagtctgca 240
gagatgtaat tttgcctagg ctttacagct gtggtcttgt aacaatcttt atttcataag 300
ctctttgcat aattaaactg cctattcggc cagtcttcct aggatgaaga aattgtctcc 360
acaaagtaag tagtattcag tttctacaaa gagatagtct attgccaaag gatatccac 419

<210> 261
<211> 424
<212> DNA
<213> Homo sapiens

<400> 261
aattcggcac gagaatgatc tcccaccagg cacttcacaa gagaacatcc cagtgaggcc 60
agttgtgatg aattctgaga tgtggtacaa gcgtcacagt attgcaattg gagaggtgcc 120
agcttgccgt cttgtccacc gcagacagct gacagaggcc aatgtagaag agatatggaa 180
gtctatgaca ttatcatact tacagaaaat tcttggcctg gattccttag aagaagtttt 240
agacgtcaaa cttgtcaatt cgaagttcat catccataat gtatatagtg ttagcaagca 300
gggagttgtt attcttgatg acaaagtcaa aagaacttcc tcattgggtg ctgcagctat 360
gaagtgtttg gcaaattggc ccaactgttc tgatttgaag cacctatgtc ttgggatttg 420
aaaa 424

<210> 262
<211> 422
<212> DNA
<213> Homo sapiens

<400> 262
aattcggcac gagctgagca gtaggctctt tttgtttacc atttgcacca tgagagcttc 60
tccattcaaa ggcataaaat gttattggaa tctacctgca aaatgaattg gctgattgtt 120
ttctgttcag acacagatac agcaaattgc cactaagaat ctgcttttgc gtataccgtt 180
ggctgtaatt tatgtagcaa ctggttcttg ggaatttcaa gaagaaactt gttttcttat 240
cctcacctat aaagtaagca ccaaaattta aattataagg cagataacct aagtccttta 300
cctctatctc aaccttcaag gcctgtttct tggtactctt gcctgtttca taggattctt 360
accgtttgtg ggaggcttgg agggagtagt gaggaaccag ttcctgagga tgtctcaata 420
aa 422

<210> 263
<211> 407
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(407)
<223> n = A,T,C or G

<400> 263
ctggatttca gatttctagc tttcaaaact gagacagaat aagtttctgt tgttttaagc 60
tcccccctcc catttgtggt agcttgttac ggcagcccta ggaaaataat agggcaaagc 120
agagtttcct gcccagtatg tccccttgct cactactggc ctgcagtcct ggtggtcaga 180
cttatccttc tcgctctgtg ccttgctagt cacaaccccc ctcagcaaaa tgatgtgcaa 240
gagaagttag agaaaagacc tttcatgcaa ctgagaacac agccccgaag cctgacttgg 300
ttcacacctt gcccaagtct aatttgccaa agaccttgaa agtgacctta ggatgntaaa 360
gatacatttt ggtagagaga gagagagaga gagagagaga cncttcc 407

<210> 264
<211> 417
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(417)
<223> n = A,T,C or G

<400> 264
ggatcgcgtc attgcactcc agcctgagca acaagagcga aacaaaaaca aacaaacaaa 60
caaaaaaaac ccacccaaat ccttttttt aatgtagtag ggtttatata gatatactaa 120
tataattgca tttggagaat taaagtatgt atggagccca cacatactgt gatataaagt 180
gtatatacag atatttggat attttctagt ttgcatgatg attaagagaa ccacatggga 240
aaatacnatc tncaaagtga tgtttatcct ggaattaccc antttanatt anagaggttg 300
ttcaaattta actagataac tctagtttgt actgtatagg tgcagttatg acagtaaaaa 360
aatagcctct tggctcatac ctgtaatccc ccactttggg aggccaaggt gggagga 417

<210> 265
<211> 419
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(419)
<223> n = A,T,C or G

<400> 265
aattcggcac gaggagcctt cttgtaaggc cttctggtgc gatccctggt gggctgcttg 60
gcctacctgt tgctgtgccc gccttgcaac tgaggcgcag ccaagatgaa gctggagtcg 120
gcacaggtgg tgaggaggga ggacggagag accctgtgcc tttgatgaca atgctggcag 180
ctgcctctgt cctctcttgt tatcttagca aaacgaatcc taaccctgtt ttatgctctg 240
ctggttgagt tttgtgttcc taactgatgg actttaggaa gctgagggct tcttacccga 300
ggtagacgtt aaactgtgaa tgctaaaacc aaaccaagtg tccatgtgag tgngngngaa 360
ctttaanaca tgtacagnta ttatcaccnc cacgttatat tcangtctga cacttaatc 419

<210> 266
<211> 416
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(416)
<223> n = A,T,C or G

<400> 266
aattcggcac gaggaagtac tgtggctgta tacagaacct gtatgctggt tgttcttttg 60
cgggtccaga taaacataat tggtggatat atttacctgg ataatgcagc agttggcaaa 120
aatggcacta caattcttgc tcccccagat gtccaacagc agtatttatc aagtattcag 180
cacctacttg gagatggcct gacagaattg atcactgtca ttaaacaagc tgtgcagaag 240
gttttaggaa gtgtttctct taaacattct ttgtcccttt tggacttgga gcaaaaacta 300
aaagaaatca gaaatctcgt tgagcagcat aagtcttctt cttggattaa taaagatgga 360
tccaaacctt tattatgcca ttatatgatg ccagatgaag aaactccatt ancagt 416

<210> 267
<211> 389
<212> DNA
<213> Homo sapiens

<400> 267
aaaaaaacac aaaagccccc ctttataaat aaacctaaac cacacacaca caaagtttgg 60
tgaatgagta tatatatacc actgatgaaa ggaaggtgaa atgtttgcca tacatatttt 120
tatgatcgtt tacctgaaat taacctttta aattacataa ccaattgttc taaatcacat 180
tagataaaag ggtttttact gcataatatc cataatatat aaagagctcc taaagatcaa 240
taagagaaag gtacccacta caaaaagcaa aaagtggcag aagattatac atgggcattt 300
cccaggaaaa gaagtactgg tgaataaaaa agaaaagatg ttcaaattga ctctggttat 360
tagggaaatg taaaccgttt ttcaccaga 389

<210> 268
<211> 405
<212> DNA
<213> Homo sapiens

<400> 268
aattccgttg ctgtcggtgg tggctcacac ctgtaatccc agctactagg gaggctgagg 60
caggagaatc gcttgaacct gggaggcgga ggttgcagtg agctgagatc acgccactgc 120
actagagcct agacatgaga gcaagattcc atctcaaaaa aaaaagaaaa gaaaaagaga 180
gctctgaaca agcgccttta gggtcacaga gaaagtgcaa cctgctggag gctgagagtt 240
acaggtctgg aaggcgcctc tgtgaggaga ggaagcccca ggcgcgagcg ctcattttca 300
gtcatcttaa aatagagcaa accaggctgg gtgcggtagc tcatgcctat aatcccagca 360
ctttgggagg ctgaggcagg cgggtcactt gaggtcagga gttct 405

<210> 269
<211> 396
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(396)
<223> n = A,T,C or G

<400> 269
aattccgttg ctgtcggtga agctggcatg gctaagggac accaaaaagg tcactgtggt 60
tagcttggaa tgaatgaggg gtggtaaaaa tggaagtggt gagaatgagc acatttgaga 120
tatattttga aagtagaggc aacagagaaa gagatggctc cttatttgtc ctgaacaagt 180
aaaagaggag gagttatagt tagcacagat gaagaagact gtgtgtggag aaattatatt 240
attttatttt attattggtg gtagatggac tcagagttta gttttggata tgttaacttt 300
gaagtgtctt attaattatt gcagtgtgaa accactttat cagacagtag naaaaatctc 360
tcttataaag ggaaacaaag gagtanaatg tttgtc 396

<210> 270
<211> 406
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(406)
<223> n = A,T,C or G

<400> 270
aaaaaaatag acaaactctt ggtatatacc aggctatctt ggtttgctgc agctgatcaa 60
atgaaacagt ttgttatggt tttacgaatg agaatatcac agactctctt ctaatttaaa 120
gcccctgtgt gaaaatgttc agtcaggtcg cagcagtata tttcaagagg atgaaatatt 180
cagccaaggt ctctctgcag tccaggcaga cagctggaaa ggtgcgctct gagttctgat 240
taaactgtgt ccccatacca ggggcttcct gtttcttgca tcctttacct gagaggggac 300
aatagttctt tctaacttaa ctgagctgat tggcatcttc ccggaaanct tttaattacg 360
tgtggcaccc taaaaagggg gatgaccacc gaaccatcac cctgag 406

<210> 271
<211> 404
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(404)
<223> n = A,T,C or G

<400> 271
aattcggcac gagaaacatt ctgttttagt catccttgag gatcgtttta actccttgat 60
ctgtaaaact gtcttaagca tcttaacatg ttacatcaca gggttttagc tcagatttcc 120
aaagagccat attttttgat gcatatttcc agttgaattc cagtgtgaat ttccagttgt 180
actttgcatt ctgattcttt gatatttgaa cttggccatc tgtgggtgct actctcgtaa 240
gactaaaagg cacctactaa atacgaacaa ggataaccag ttctaccaaa aacattacca 300
accaaacctc ccctgttctt ttttcagact ttccttttgc tttcaacctc ttaaactgta 360
aaggagagat ttaatgnttc cctattattc tgctttgact caca 404

<210> 272
<211> 396
<212> DNA
<213> Homo sapiens

<400> 272
aattcggcac gagggattac aggcacgtgc caccatgcct ggctaatttt tgtattttta 60
gtagagatgg ggtttcacca tcttggtcag gctggtctca aactcctggt gatccacctg 120
cctctgcctc ccaaagtgct gggattacag ccatgagcca ctgcacccag ccggcttcat 180

ctcttcttga aatcactttt ataccattct atgtggttct caccatgagc ttgagtggtg 240
ggctaaagtg cctctccctg ctttcagctt cctgctggga actcactctc tcaagttcct 300
tccagcacca ccccatagag ttcccatcac tccacactgt ccagtgacaa ctcccaacat 360
ggaagatctg ctagttctac agggtgctct ctggct 396

<210> 273
<211> 420
<212> DNA
<213> Homo sapiens

<400> 273
cacttcccat gctcctaggg ttaggaatag tttcaaacat gattggcaga cataacaacg 60
gcaaatactc ggactggggc ataggactcc agagtaggaa aaagacaaaa gatttggcag 120
cctgacacag gcaacctacc cctctctctc cagcctcttt atgaaactgt ttgtttgcca 180
gtcctgccct aaggcagaag atgaattgaa gatgctgcgc atgtttccta agtccttgag 240
caatcatggt ggtgacaatt gccacaaggg atatgaggcc agtgccacca tagggtggtg 300
ccaagtgcca catcccttcc gatccattcc cctctgcatc ctcggagcac cccagtttgc 360
ctttgatgtg ccgctgtgta tgttagctga attttgatga gcaaaatttc ctgagcgaaa 420

<210> 274
<211> 429
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(429)
<223> n = A,T,C or G

<400> 274
aattcggcac gagatcttgt tgagcttgta aaatgccagc aatttaaaac taggactttt 60
ccccccataa gccaaggagg tagaattact aatacaaggg ttaaagaagg tagattttgt 120
tttcaatatt tgggtaatat tagaaagatt cttcccacag ggaagaacta gcaagtgtcc 180
caatttttc caaacgttgg ggaggggaaa attcactgta tcatgaaacc ctaagggttt 240
gttgcacttc ctgcttttta ggcctggata acagtatcac catccttatt tacagaaggg 300
taaaactgac tcttaatgag aaaagcttta taagttcaag ggctgtaaaa tatgaactac 360
ttaaggtcgt ttgccttcca tgggaacttg gctagactta naaaaagctg ttgttgngct 420
aatgtaaaa 429

<210> 275
<211> 386
<212> DNA
<213> Homo sapiens

<400> 275
acgctctcgg gagcagttct gttaatccct gctgggagca gagactgcga aaagctgagt 60
ccgccgatcg tgcccgggac aaggctgcct tccactcgcc gcatctacct ggtaggcggc 120
atgcgcacgg gcttagaggc ttgagagcct ctggaagaga aagggtccca ggaaggaaac 180
ctgccccggg cctaagtgtc ggcgcccaga tcaccacgaa ccccgcacct aggcgccgcc 240
caccaagttc caaagaagtc cgaggcgacc tgggagtcgg tcggatccca gccgagaaaa 300
gaaacaagca ggatagcaat tcttatggga gccaccctgg gagttttagg cagcgtttgc 360
ctttccctgg ttttcttacc aagccc 386

<210> 276
<211> 406
<212> DNA

<213> Homo sapiens

<400> 276
gggaaatggg gccctaggag ggtgggggcg ggaaggaggg gcaaggtctt tcaggaacca 60
gacccaacag gcccttctgt agcctccccc ttgccctcaa agggggagtg ggggccagct 120
ttacctcacc cactgtgacc cgccgcttcc ccttcagcct gggaccaggc tttcctagat 180
cccagcacag ctctgagctt gttcctttga ggcatagaga gccagagtct ggcttccaga 240
gcattgactt cctcttccta gacttgaggc cttttctctg gctttcctcc tttgccctgc 300
agtagcaact ggtgctggga caagttgacc cacctctcac agtcatgggt gtggccactt 360
gtgggagttt cctgtccacc tcccaaagac ggccacccag cgggtc 406

<210> 277
<211> 395
<212> DNA
<213> Homo sapiens

<400> 277
acagcactga gctagaggac gacgccatct attcagtgca cgtccctgct ggcctttacc 60
ggatccggaa aggggtgtct gcctcagctg tgcccttcac tccctcctcc ccgctgctgt 120
cctgctccca ggagggaagc cgccacacga gcaagctttc ccgccacggc agtggagccg 180
acagtgacta tgagaacacg caaagtgggg acccactgct ggggctggaa gggaagaggt 240
ttctagagct gggcaaagag gaagacttcc acccagagct ggaaagcctg gatggagacc 300
tagatcctgg gcttcccagc acagaggatg tcatcttgaa gacagagcag gtcaccaaga 360
acattcagga actgttgcgg gcacccaaga attca 395

<210> 278
<211> 391
<212> DNA
<213> Homo sapiens

<400> 278
aattcggcac gaggtgaggg ctgtgcaagg gggaacactg agcagatacc tttggcccct 60
tccagctttt actgacagag agttccaggc tagacaccat aaaaaccacc ccttgttctg 120
aggggctgag gctggaaata gattgtacag acaagcaagg gttgagtggt ggttcccaca 180
cgaagtcatc tcttaatcat cattagcaat agcagttccc ttccaaggcc tcccctcact 240
cccgaaacac ttacgtccca tgcaggccca atgcaaaaaa aaacatttga gcttttttcc 300
cgcagggcca tgaagtcccc ttaagttccc atatctaaga tggttgactg accctctccc 360
cttatgtaca gaagaggaaa ctgattctca a 391

<210> 279
<211> 377
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(377)
<223> n = A,T,C or G

<400> 279
gtaaaggagg ggtggtgcta gacgtttcgg gcagagctcg gccgctgcgg aggacaagga 60
actctccctc tcccactagt ctgacttctt ccaaaatgag cggcctggat gggggcaaca 120
agctccctct cgcccaaacc ggcggcctgg ctgctcccga ccatgcctca ggagatccgg 180
acctagacca gtgccaaggg ctccgtgaag aaaccgaggc gacacaggtg atggctaaca 240
caggtggggg cagcctggag accgttgcgg agggggtgc atcccaggat cctgtcgact 300
gtggccccgc gctccgcgtc ccaantgccg ggagtcgcgg cggtgcagtg accaaagccg 360

ggcaggagga tgctcca 377

<210> 280
<211> 329
<212> DNA
<213> Homo sapiens

<400> 280
cctttttgaa cttcccttct attaaactta aaacagatgt cttaattaat caggctgtct 60
tggaagggta ttgtattggg agacaagggg cggtggtgga cctcaccttc aatccaagtt 120
ttcaaagata ttttctcaat aactctaaaa gggaggtgct tgggattaag gtgacagtcc 180
acttgatcct tttctttgtt ttagtgtgaa tttcagcagc tccatctgtc ttcatgattg 240
tacttgagca gtattagctg tatgagttaa ttttattcag attgaagatg gagggcgggt 300
tctgctcact cagtcttttt ttttttttt 329

<210> 281
<211> 243
<212> DNA
<213> Homo sapiens

<400> 281
aattcggcac gagcctggat gtcaaagtcc tagagccaga aatatattct ctcatccctc 60
ttagcattct cttgctccct cattcactag ggcaaatgtc taaatgaaga aaagtctctc 120
tcaacacctc gttcatgcaa tcagcattag aatttgtaag gaaggaaggg gggtggcatg 180
aaaatttcca ttcttggggt atatgactgt cctgtttccc ccaggccact tttttttttt 240
ttt 243

<210> 282
<211> 433
<212> DNA
<213> Homo sapiens

<400> 282
cggaccagaa ctgtcttagc ttttccctct gcggctgctc tggttggtta ctttgagcct 60
gcctcctcag cgccgcagga gagacttaac agcaaaaatg actgtgtcct gagttcagcc 120
cccactgctc tgggagcttc cccctggttt ctgcacctga agaatgtcat cccagccgaa 180
ggttcttagg agcggggagc gacaaagaaa aacaaagaaa agcagacctg aaaattggga 240
cctgggagaa atgtaagaca tgtgcttaat ttgaggcaca gaccaaaaga agctgagtct 300
gagggccctc taaaagtgtc ctcgtgcttg ggcagcttac attcttggcg gcagtagtgt 360
tatgaagagg accttcggag ccaggtctgt ccattcttag ggctccagcc actgctgagc 420
atcaaacgaa gtg 433

<210> 283
<211> 426
<212> DNA
<213> Homo sapiens

<400> 283
aattcggcac gagacaggat gatgggcaag ttttactccc aaatctttaa atctacagtt 60
tatactgaaa aactaaacta tgtaaaattc atcagtcacc tcataaacat taagatacct 120
tgggaaactc atacaaaagt aatggtttaa acatgacttc agacttagta aatcatcctt 180
ttagttttgc aaaacaaagt aaaacatcca ttatatttaa catctctatt atatcaaatg 240
tggggcacat cagacaactg aaatgtcacc agcctcaagc agcccacgga gaagcgtgtg 300
tgttgagagt cctgctggca gaggtgcacg gggctccat ctctgagtac gtttcacagc 360
ttgtaccatt tacatgtcac cgccttaagg cagagctctc attccccttc ttaagcaggt 420
agttgg 426

<210> 284
<211> 430
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(430)
<223> n = A,T,C or G

<400> 284
aattcggcac gaggatgagt gatcaagaat tagagtgccc tggaggtcac tcacaagtcc 60
tcatggagac tctgccgtga cctcgcgcat gcgagcacct tcctgtctct cattttcacc 120
atctgactgg ggctaggttt ggttagaggg cggctgtaga gcaccctcag gagaagtggc 180
gccgcagggg tcacgcatgg tccagccctc aggtgggagg gaagtccttg ttggcagagg 240
gatgtggggc gggaatgagg aaaggggagg gcatgatcct ggcaaatagt ctttcctttt 300
ccgtaattac agagaaccag ganttttttt aattattgnt attataatta taattattat 360
tattattgac atgaggaaac ctaacactgg cagagggcac cttctctgct tttaatcttt 420
caggnttgac 430

<210> 285
<211> 423
<212> DNA
<213> Homo sapiens

<400> 285
aattcggcac gaggccatca gaactgtgaa agaaaataac atttttctc tctttttaga 60
aagacacagg ttcagaatgg tgttgtcagg gatcacaagc tcccagcccc gtgattagca 120
aattgaccct gctgccctgt ctgctggctg ctttcttatt ctgagaattg tgttgacaag 180
accctctttt cctacagagc tctctcttaa tgttgcttgg aatagccttg tgtcctggag 240
acagttttag gtctggcagg atctgagaac aggagtgggg atcttggaat gggatctgca 300
tccctgagct tcatccacaa agggtgggaa tgtggcttgg gctgtggggt ggaggtagat 360
gaacagctgg acttgcaggt ctatcttctg ttgtttctca ataaagtaga caaagtccat 420
ctg 423

<210> 286
<211> 421
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(421)
<223> n = A,T,C or G

<400> 286
aattcggcac gaggtggaag gacagcatcg atgaactctc ctggaggtca ctgcaaaggg 60
tggcagaccc tgctgaggtc cctgaatctg cagcctccag acaataaact gaaccttacc 120
cagaaggctg gcacaaagcc cccagctctg tgggtaggat ctccccttca ctgccctctc 180
tctgagaaag gacagcacac ccttgggaaa gggggaggag agagactgag cacaaatcca 240
ctgctggaaa ttactattca gcagagaagc tgggtcttgg gctgtgaatc actgcaggcc 300
tcctgataag ctgctgcctc cagccctgca cagctgtctg ttgagagata acagcctcat 360
aagcttctct gccaactcca agccagctgg ggggggggn gctntnnnng ctggaaaact 420
c 421

<210> 287

<211> 425
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(425)
<223> n = A,T,C or G

<400> 287
aattcggcac gagaggacat ggatcagctc ctccagctaa ccaggaagct tgagagtagc 60
cagcccaggc aaggagaggg taacaggacc ccagaaagtc agaagaggaa aagcaagaag 120
gccaccaagc agaccctaca agatagcttc ctcttggacc tcaaatcccc tccttctttc 180
cctgtcgaga tctctgacag gttgcccgct gcctcctggg aggggcagga gtcctgctgg 240
aacaagcaga cttccaggag cgaagggact caccctgagg gaacatatgg agagcaactt 300
ggtcctgagc tgtgcaacca atcagagtcc aggggagaag atttcttcct gaagtccagg 360
ctccaagaac aagatgtcnt ggagaagatc cacttctttc tatacccaca tgtgcaaccc 420
ctggg 425

<210> 288
<211> 421
<212> DNA
<213> Homo sapiens

<400> 288
acatcttaca aacaaggctg gagaggaaag agaaggggtc agagtacaga tggcctctca 60
tttcaggcag agaggttggg tctgtacatg gaaggcagta gggagccctt gacaactact 120
gagcagagat tggcagaact aattggtgtt ttagaatgag cagctgggaa aactccgtag 180
aagggaccag aagaggcaag tctgaaatca aggagccaca tggggagttg ctttaacagt 240
agaaggtcac tcacagcttt acccctgtgc aaagagaacc ttggtgcaaa ggttgacaca 300
gccacttacc agccatagga ccttgagcca gttttaaatc ttcctgtacc tccttgccgt 360
atcttgcatc tagggatgct cgtgtcattc attcgttcaa ccctaaaagg gcccgtttca 420
g 421

<210> 289
<211> 419
<212> DNA
<213> Homo sapiens

<400> 289
agcactttgg gaggccgagg cgggtggatc acgaggtcag gagatggaga ccatcccggc 60
caacatagtg aaacctcatc tgtgctaaaa tacaaaaaat tagccaggct tggtggtgtg 120
cacctgtggt cccagctact tgggaggctg aggcagggga tttcttgaac ccagaaggcg 180
gaggttgcag tgagttgaga tcgcgccact gcactctagc ctgacaacag agcaagactt 240
cgtctcaaaa aaacaaacaa aaaaagaaat tacattagtt gaggacctgc tgtatgtgat 300
atgaacaatg aggatcaact ctttttgtaa tagttttttt acatatgtta tttcatttgt 360
ttatttcctc tgtgagggta agtattgata gtccagtcat agactggtaa cacaggcac 419

<210> 290
<211> 416
<212> DNA
<213> Homo sapiens

<400> 290
aattcggcac gagggaaggt agaatttgta aaagttcgta tgctttgcct ctcaactgca 60
ttaacatgcc acaggctcag actgtttttg tgtaaaggat gtcaaagaac ggcactttt 120

ctaaagagaa gtttgatatt ttgtatgctt gttaagaaag tacagtattg gaaattaaag 180
gtggacaact gataattgag gagtatgtca attaattttt tatgtatatt acctgtttac 240
ttgtacaact tactgtacaa attacatgca gcttcatttt caaatgaatc cttaaaataa 300
ggaaatcttt ttaggaaaac atttaatttt tgtatttttg atttaaagg catgagttat 360
gtcaatttc agtgtattaa tgaagatttt aacttttcat cagggtgagt gttttc 416

<210> 291
<211> 415
<212> DNA
<213> Homo sapiens

<400> 291
aaattgtcta ttaaatgcaa gacgtggtaa tatacagaat ttatcaggca ttaccaagtc 60
taggcacata taggaaatgc agcactcaga atggtttcaa tgtagtagtt gatgcttgta 120
aggtagggga gcttattcag acatagtaga tagtttctct aatgctgtct caattgctgg 180
cctttggcta cctgtacttc cccattatgg cagcccattt gcgctttttg ttctctctgg 240
gacaccttat gctctgaaat catgagcgag gctgattcaa ttggtgattt gggtagaaag 300
cagtatgttt tgctgacatt aagatgtagg ttatagatag gtttagccct taagtgtatg 360
tttttatact ttaaaataag aaatataacc ttttaagcta ttcccctctc cccag 415

<210> 292
<211> 417
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(417)
<223> n = A,T,C or G

<400> 292
aattcggcac gagggaaaaa ccaaaccctc tcctggtaag ttgtgcctgc cagccctaga 60
aactgtcaag tgtgncactt tccatcttac ctaggaatag tccatttatt ttcgagccta 120
gctttttgtg tttctgtggt tagctgcact cacacgtacc aatttttaga ttcacgtcag 180
ctacatatgg aggggatcgt ttgagtctag atctcactgt ctgttccttt tcgagggaag 240
caagttttct ctcaagaagg attttgatgn ctccgataaa aatagctatc ttattaatct 300
aatanttgga agttagaggt tctgtgtgtg gagtgggttg tttggtggaa cattcgataa 360
gcagctggna aagnttcctt tctgagtggg ctgtaccttg gaaatggttc acacaac 417

<210> 293
<211> 416
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(416)
<223> n = A,T,C or G

<400> 293
aattcggcac gaggttgcgg ggtgggaggg cggccaagac gtctgagcag tatcccaggc 60
accccttcca gcccagggtg acctcgaaag cagcagagag aacggggact ggaggcgggt 120
gggccctgga aatcctctca tggtgcgggt gggggggtat ggggggtgga ctgtcacagg 180
tggaggcagc aaggcagctc ctggcagcag gaagaggccc aggtgcagca ggaaaccccg 240
tccctggtgc tcactggtga ccgtgggcag aggagaggac aagtctctcc acacagcagc 300
ctggggccat ggggtacagc catcttttgc aattgtcttc ttttatttat tctgcaaaat 360

gcccattccc aaaggcttct gcatcctgtc catcaaacan gacagtcngt gccttt 416

<210> 294
<211> 419
<212> DNA
<213> Homo sapiens

<400> 294
aattcggcac gagaagccgt ggggacgcgc ccagcggagc taatcagatt acctggctgg 60
tgtttgcttg ttctggagtg atcttctgac tggaaaagaa ctatgtcatg gatcaaggaa 120
ggagacctct cactcctgcc tggtgttcca acccgttctg tggccagagt atacattttg 180
gaacctcttc gaggccatcc tgcagttcca gatgaaccat agcatgcttc agaaggcccg 240
aaacacattg cattcataat ggacgggaac cgtcgctatg ccaagaagtg ccaggtggag 300
cggcaggaag gccactcaca gggcttcaac aagctagctg agactctgcg gtggtgtttg 360
aacctgggca ttctagaggt gacaagtcta cgcattcagc attgagaact tcaaacgct 419

<210> 295
<211> 419
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(419)
<223> n = A,T,C or G

<400> 295
aattcggcac gagaccgaga tctgacttga atgcagacaa aaaagcagaa attctaatta 60
acaagacaca taagcagcag tttaataaac tcattactag ccaggctgtg catgttacaa 120
ctcattctaa aaatgcttca cacagggttc caagaacaac atctgccgtg aaatcgaatc 180
aggaagatgt tgacaaagcc agttcttcta actcagcatg cgagaccggg tccgtttctg 240
cgttgtttca gaagatcaaa ggcatactcc ctgttaaaat ggaaagtgca gaatgtttgg 300
aaatgaccta tgttcccaac attgatagga ttagccctga aaagaagggt gaaaaagaaa 360
atgggacatc tatggaaaaa cnangagctg aaacnagaga ttatgantga gactttgaa 419

<210> 296
<211> 415
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(415)
<223> n = A,T,C or G

<400> 296
aattcggcac gaggtgcccc cagccagggt gagccccttt cccagaactg cctcaccacc 60
cagcccttgt gtgatcctca tgtctcctgc cccaggacca catcctgagc ttgggtgccg 120
acttcacctt gatctccctc ggcagcacca ggagaaagtg gagcggctgt tagaggtgtc 180
acgtgaacct gacaagggct ggcggggact ggcagaccat ctgggctacc aagctgaggc 240
tgtagaaatc atggcccaag gccaggtgtg agcctacaca ctgctgaggg actgggctat 300
ccaagaagac agtggtgcca cccacaaggt gctagagaat gccctggttg ccatgggcca 360
cgaaaatgtg gtccaagtcc tgggccccca agctgagggc tgnctgtggt gtgag 415

<210> 297
<211> 413

<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(413)
<223> n = A,T,C or G

<400> 297
cttctgctgg gactggccat tatctcaggg cttctgttgc attatagccc tgtgttctgc 60
tggaaagtag gaaacacttc caggggacaa aacatggatg atgtcatggt tttggtggat 120
tcagaagagg aagaggagga ggaggaggag gaagatgctg ccgtagggga acaggaggga 180
gcacgtgaga gagaggagtt gccaaaagaa atacctaagc aggaccacat tcacagagtg 240
accgccttgg tgaatgggaa catagaacag atgggaaatg gattcaggat cttcnagatg 300
acagcagtca ggagcaaagt gacattgttc aagaagaaga caggccccant ctgaanaaga 360
agatgggcca tggttgtctt ctctgaaagc ttggagagct acatttgaag acg 413

<210> 298
<211> 409
<212> DNA
<213> Homo sapiens

<400> 298
gtcggcccag ctccggccat ttgcccggag gcctcctctg ggcctttcaa cttcctaagc 60
acctttcagg ttgggtggtc cgagatctcg cgagcgctcc cgacctcttt cctttcgcga 120
gatccccctct cctccccctc ctagtctcct cggcaacggc acagatctcg cgagcttctc 180
ctacttctct agcgctgtgg ctcactgaag cgtactacgc cggatgtctt aagatatcgc 240
gagaccttta cctctggttt cttacacatc ctttagaaac tggaatttag cgagaataca 300
ttctttcata ctgcctcctc ccttgttttt ctgtctcaga gagatagtct gtcctaaata 360
tcccatgtag cccaggccac tgaattaaaa cggagcgtat tcgttctct 409

<210> 299
<211> 434
<212> DNA
<213> Homo sapiens

<400> 299
aattcggcac gagggtgggt gtcctgagtt tggcctggga gtcaggtgag gcagtggagt 60
gtttgaagag agggtgaggg gtatgggcga cccgcacaga cttgaatccc aggggctcct 120
cagcagtgct gtgaaagggc tgtcgctggc tgggactggc cttaacagaa gggaaatgca 180
ctatctcgtg tcctgcgatc tgggtcagca gctcggtcgt gtcatctggg atgcaggctc 240
ctttcctctt tctcctcctc catttcatag ctccaggttc accactgcac agtaatggcc 300
agagcaagaa agggaccatt gtgccctgtg ccccccttctc aggcaccagg tagactttcc 360
tctgtctcgt tgaccaggac taagtcaaag tatgtatcct tagtagggaa tgtgatgagc 420
ctaatggcat gggc 434

<210> 300
<211> 410
<212> DNA
<213> Homo sapiens

<400> 300
aagaaaggaa ccaaacaagg cgtgagtgtg ttggggaacc ttcccagtgg agcaaacccc 60
cttaacacac cagctgttgg gaacagctgc ccctaaatcc aattaaaccc tcatctccct 120
ggtgctgaac agtctacact ggcccaggaa gctaacgtct gagccgcttg gagagctttg 180
gtaaacagaa gacactggaa gcccactcgg tcagcagctg ggcatgagga tgtcaggggc 240

ctttggactt gaggaaggac agtccaggtg catggaatcc taatgggcct catgcagaca 300
ctggaagcag cccagccccc tgcccaatac cacagccctg gggtgtcccc tgacattcct 360
ggaggtccct gggcaaatgc atttcctgcc tgggttctca gggtaggaaa 410

<210> 301
<211> 410
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(410)
<223> n = A,T,C or G

<400> 301
aattcggcac gaggctacca gagtttgatg aaagtagccc cactaaaaac atctcacgtc 60
ctttattcta attctgaccc accaaaaagc cttctaagtc aatgacacaa tgtctggagt 120
gcctctgtat gttatgaaag attgctctag acatcctacc cctgttcttt agtcagatgt 180
gttttccagg gtaacccaag aatgacattt tagcttgtca gtatcttgga agtgattagt 240
aagagctcag tcctaaagac tggtttgttg tgagtaaaca aataaagctg gatttctgaa 300
acagcaaagc tgagactcca gaccagtaat gctcaacctt ctttctgtcg agcatgcctg 360
gnagtaacag tggctcacat ggaagtaaag gagtttgttt tttgaagggg 410

<210> 302
<211> 413
<212> DNA
<213> Homo sapiens

<400> 302
aattcggcac gaggctggag gcattcgaaa gggactcccg atgtggtggg cggggctgaa 60
ccctgtggct tctgaggtcc ctgccagcca gagacttgtg tgagtctttg aatggcttca 120
catgaacaaa agagcatttc tgtcaccttt cctctagttt tttccaccac acccaccagg 180
gagctgaggc aaggttgttt ctgttgctgt ttccttaggt cagctgaggc tgtccattga 240
tgcccaggac cgggttctgc tgcttcacag tgagtacggc tttgtgcagg ctcaccaagg 300
aaggggcggg ccactcagca gagcagggcc acagaagagt tttcctatct tccctcccct 360
ctttattcca tcctttcttc ttttctctat ttttctcact cattcattta ttc 413

<210> 303
<211> 410
<212> DNA
<213> Homo sapiens

<400> 303
aattcggcac gagggtcctt cctccagccg cggggcaccc ccttctccca ccttgccctt 60
cccccagccc tgcagcccca gagtgagcat ggcccaggag gagggtggga gcctgcccga 120
ggtgcgggcg cgggtcaggg ccgcgcatgg catccccgac ctggcccaaa agctccattt 180
ctatgaccgc tgggctccgg actacgacca ggatgtggcc accctgctgt accgtgcgcc 240
ccgcctcgca gtggactgcc tcacacaagc ccttccaggc ccgcccccaca gtgccctgat 300
cctggacgtg gcctgtggca caggcctagt ggctgccgag ggaccttcga cgcggtgctg 360
atagtcggtg ccctcagtga cggcaggtgc cctgcaatgc gatacctgac 410

<210> 304
<211> 413
<212> DNA
<213> Homo sapiens

<400> 304
aattcggcac gaggatgttc acaaaagttt tatcaactca ctttgttttg atactgaagg 60
tcatcatatg tattcaggag attgtacagg ggtgattgtt gtttggaata cctatgtcaa 120
gattaatgat ttggaacatt cagtgcacca ctggactata aataaggaaa ttaaagaaac 180
tgagtttaag ggaattccaa taagttattt ggagattcat cccaatggaa aacgtttgtt 240
aatccatacc aaagacagta ctttgagaat tatggatctc cggatattag tagcaaggaa 300
gtttgtagga gcagcaaatt atcgggagaa gattcatagt actttgactc catgtgggac 360
ttttctgttt gctggaagtg aggatggtat agtgtatgtt tggaacccac aat 413

<210> 305
<211> 410
<212> DNA
<213> Homo sapiens

<400> 305
cccagctggc caaccctgac ataccccctgg gcccagccga gaacttcctg atgactcttg 60
cctccattgg cggcctcgct gctcgtctac aactctgggc cttcaagctg gactatgaca 120
gcatggagcg ggaaattgct gagccactgt ttgacctgaa agtgggtatg gaacagctgg 180
tacagaatgc caccttccgc tgcatcctgg ctaccctcct agcgggggca acttcctcaa 240
tggctcccag agcagcggct ttgagctgag ctacctggag aaggtgtcag aggtgaagga 300
cacggtgccg tcgacagtca ctgctacacc atctctgctc cctagtgctc cagacccggc 360
ctgagtcctc tgacctctat tcagaaatcc ctgccctgac ccgctgtgcc 410

<210> 306
<211> 405
<212> DNA
<213> Homo sapiens

<400> 306
aattcggcac gagcccagct aatttttttg tattttcagt agagatgggg gtttcaccat 60
gtcggccagg ctgatctcaa actcctgacc tcaggtgatc cacctgcctc agcctcccaa 120
agcgctggga ttacaggcat gagccatcac acccagcgaa aagttttgtt tgaataaaca 180
atatccgaaa gacaattagt ttcttcagat gtattttgaa attctcctaa agagctagtg 240
tttctattca ttttcacaat ttaaaaacag ctcttaacat tgctgaagtt gggagaactt 300
tccatctctt cttaataaca gtgcaagatt ttgtaaattc ttttttgtgt ttaatgttta 360
ataaaacgag tattaagctt aaattactga agtacctggg agaag 405

<210> 307
<211> 403
<212> DNA
<213> Homo sapiens

<400> 307
cctgagtgta cagaatgaac aaacctgaaa gcctaagtac tatcttggtc cgtctagctc 60
ccacacctag cttgagagta gcctctcata tcaatgcttc cctgctatcc tttcaaaact 120
ctttttgatg ggataagtgg gcaaagatca tgccatcgtc tcaaatgcta acttcctttg 180
acaagacagt ttctcccagg gatatccccc acaggcctag gccaaatctc tgactcactg 240
caaaggtcca tgtacactga actgatagac atcactattt ttattggaaa acacaattta 300
tataacactc ttcctctgga ataatactct ttttgtggac aaataccgag ttggtcctct 360
cttctcccag cacaccccac ccccctcccc atgactgtgt taa 403

<210> 308
<211> 401
<212> DNA
<213> Homo sapiens

<400> 308
aattcgccac gagattgccc tttaccccat gcccaatact gcaatggcac cttaggctgt 60
gtgtgtgtca gacagaaaaa taaaacatca gatttttgtt aattttgggt gatgagtgag 120
gtcagggata gttattattt tgagactgct attttttttt ctcttttta aaaacagatg 180
gggctgggca caatggctca tacctgtaat cccagcactt tgggaggctg agggaggtgg 240
attatttgag gccaggagtt caagaccacc ctggccacac ggtgaaaccc cgtctctact 300
aaaaatacaa aaattagcca ggcgccgtgg tgcatgccag taatcccagc tactcaggag 360
gctgaggcac aagaatcacc tgaacccagg agacgaggct g 401

<210> 309
<211> 404
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(404)
<223> n = A,T,C or G

<400> 309
cacactccag gctgagaaag agtaattagg aggcctgagg aggggccgag gaaaggctgt 60
tggggtgtgc tggggttggt acccgagcgc cttcccctca cctcaaccag agaagagcat 120
ccggttgctt tttaaagctt ttagcctgcc ctagcaagga caaagcatgt tagattagag 180
atgcttctgc tgatcgcagg ggttcttatt tgaaaacatc tatgatgggg gaggtgtggg 240
aggttttttt tattnncttt tnannaanca acgnttnctt caattanatg gganatnngn 300
ancccnggan ncttcntcat gaaagtcctt gaancattaa agncannttn nctgctggtg 360
ntctttntgg caannantta tnttnncnnc ncnctcactn aaac 404

<210> 310
<211> 405
<212> DNA
<213> Homo sapiens

<400> 310
tttaaaagta aaatgtattt taatgatgtt agaataagac taccattcta aatatcacct 60
acttatgaat aacatgtaat aatttttaac attaatgatt ccataaattg tattattggg 120
attagaatgt gctttatgac aggttagtgt ttcctctgag gcagaaaact ctttttgga 180
gatatcttcc atcaagcagt actcgtgccc atatacaatc tctagtggct aggagaaata 240
aataaaaggg ccataatggt ttgttctctt tcagacataa tttagtaggg gacaagaagt 300
ctgttcttca gtgagtacac tagagattta ctctggtgac tgcttttgag ttatgggtga 360
agtaaggtat ggctttacca taaccttgat tcattcaccc ttgat 405

<210> 311
<211> 403
<212> DNA
<213> Homo sapiens

<400> 311
ctggcccacc ccctcctgga cccatccttc ggccccagaa ccctggggcc aaccctcagc 60
tgcgaagcct cctcctcaac ccaccaccgc cgcagactgg ggtgccccca ccccaggcct 120
ccctccacca cctccagcca ccaggggctc ctgcgctgct gcctccgccg caccagggcc 180
tggggcagcc ccagttgggg cccccactcc tgcatccacc acctgcccag tcctggcccg 240
cacaacttcc ccctcgggct ccactgccag gtcagatgct gctgagcggg ggtccccggg 300
gcccggtccc ccagccgggc ctgcagccca gcgtcatgga ggacgacatc ctcatggatc 360
tcatctgaat ccccaacacc caataaagtt cctttttaac acc 403

<210> 312
<211> 406
<212> DNA
<213> Homo sapiens

<400> 312
aattcggcac gagcatcatt cagcaaggtg gctgggtatg agctgttata tattaaaaat 60
attttcttga aaaaaaatta ggtttgttgt ttttcttaag agatgggttc ttgctgtgtt 120
acccgggctg gagtgcagtg tctaattgct ggcactatca tggcaggctt cggtctcaaa 180
ctcctgggct caagtgatcc tgcctcaggt cctgaatagc caagagcaca ggctgggact 240
ataggtgccc accactgtgc cgtgctctat cccgtacttt ttgatatgta attattatta 300
ttattcagtt ggttcagttg tttataaatt ttccttatat gttctttgac ccttgaatta 360
cttagaaatg tattttttaa tttctaaata cttacaggtt taaaaa 406

<210> 313
<211> 401
<212> DNA
<213> Homo sapiens

<400> 313
ctgctgctct gaaagccttc cgaaggctgg tgaactccca ggggcagctg cgggtgcccg 60
tggtttttgt tacaaatgct gggaacatct tacaacacag caaagcccag gagctgtcag 120
ccctgctggg gtgcgaggtg gatgcagacc aagttatcct ctctcacagc cccatgaagc 180
tcttctccga gtaccatgag aagcggatgc tggtgtctgg acaggggccc gtgatggaaa 240
atgcccaggg actgggcttc cgaaatgtcg tcaccgtgga tgagctgcgg atggcctttc 300
ctctgcttga catggtggac ctggagcggc ggctaaagac cacgcccctc ccgaggaatg 360
acttcccccg cattgaaggg gtgctcctcc taggggagcc g 401

<210> 314
<211> 421
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(421)
<223> n = A,T,C or G

<400> 314
caaaaaaaga aaagaaaaga gtagactggc cactgacaat actgggccta atggaactcc 60
ctctaccaaa tctgtcactg cactttgcct tcatcccttt tttccctaac agcagccacg 120
atgaaataaa gtgaagttgt aggacctcca tagttgggtt ataagcccag ccccagcaac 180
aaaggtgggt tggggtgact tctggggcac caacagctta tacaaagtat acacttcact 240
atcctctttc cacaaggatt ttgctataat tcagttacca aaactagtat atgcctttat 300
ctgtgatcag aggcataaat tggaccatag gataagttct tttttagctg acattgggtt 360
tttttggttt tggttttggt ttattttggt ttgagnttag ttgataacat ttaaagagta 420
g 421

<210> 315
<211> 396
<212> DNA
<213> Homo sapiens

<400> 315
aagacttcag ctaaggccct tgatatttaa ttatgattag agacttttgg accttctgga 60
tcatggtcat gtttctgttc tatgaaagtg acttaacttg aagcctggca gaacccaact 120

gttttctttc tgttatcaaa gctggtagtt ttgaaatagc accaataata acccagggaa 180
atgtcatgta atttttattt tccattatga caggtgtcta atgcatgtca gcacaaaagt 240
gtcatcactg ctgtgtcatc cctcttggtt ttcactatgc atctataatt ttttaagttt 300
gcaggttttg tgggggtttt tgtttgtttg tttttaaact ggaaaaacta gccattttga 360
gagaaggaag gttctaggct atgagcatga aggcct 396

<210> 316
<211> 397
<212> DNA
<213> Homo sapiens

<400> 316
ggtagctggg actataggca cacaccacca cgcccggcta atttttatg tttttgtag 60
agacagggtt ttgccatgtt gcccaggctg gtcttgaact gctgggttca agcgatctgt 120
tctgctcagc ctcccaaagt cctgtgatta caggtgtgag ctaccatgcc tggccccttt 180
ttacagattt gaggatggtt ttatatcacc tcaatttctg agaacctcaa gctatgaact 240
tcgtttaagg tagttccaag tttaaggtag aaccagttcc aggttcctaa ccccactccc 300
agatacctgg cagaatcaaa gatgaatctc cggaggaggg caccttcttc ctaattttca 360
agggcaatga gcaagtacag gcagaaataa caaagcg 397

<210> 317
<211> 398
<212> DNA
<213> Homo sapiens

<400> 317
tgcaagcacc taaacagttt gccaaggaat gtttctcctg agtttgttcc ttgtgaaggt 60
gaaggaggct ttggtttgca caagaagaaa gacctactca gtgataatgg ttctgaatca 120
cttccgcatt cagctgcata ccccttttctt ggaaccttag gaaataaacc ctcacctaga 180
tgtacccctg gtccttctga atcaggatgc atgcatataa cctttcgcga ttctaatgaa 240
agacttggtt taaaagtata taaatgcaat ccactaatgg aaagtgaaaa tgctgcatct 300
gagaaaagtc aaggtttgga tgttcaggaa cctccagtaa aagatggagg ggaccttagt 360
gactgcttgg gctggccttc cagcagtgca accttatc 398

<210> 318
<211> 395
<212> DNA
<213> Homo sapiens

<400> 318
cttctgctgg gactggccat tatctcaggg cttctgttgc attatagccc tgtgttctgc 60
tggaaagtag gaaacacttc caggggacaa aacatggatg atgtcatggt tttggtggat 120
tcagaagagg aagaggagga ggaggaggag gaagatgctg cagtagggga acaggaggga 180
gcacgtgaga gagaggagtt gccaaaagaa atacctaagc aggaccacat tcacagagtg 240
accgccttgg tgaatgggaa catagaacag atgggaaatg gattccagga tcttcaagat 300
gacagcagtc aggagcaaag tgacattgtt caagaagaag acaggccagt ctgaagaaga 360
ggatggtcca tggttgtctt gctctgaaag cttga 395

<210> 319
<211> 394
<212> DNA
<213> Homo sapiens

<400> 319
cttgaatatg acaatgttgg agaagcctct gagcaaaccg tctccctcct tttctctctc 60
tgggtggaaa cggtgcggcc ttacctgcag acggtggacg agtggatcgt gcacgggcac 120

ctgtgggatg gcgccaggga gttcatcatc cagagaaaca aaaatgttcc agttaatcac 180
agagacttct ggtatgcaac ttacacgtta tatagcgtat cagaaaagac agaaaatgaa 240
gaaaaaatga gtgataacgc tagtgcgagt tccggcagtg accaggggcc ctccagcagg 300
caacacacca tggtgtcctt cctcaaacct gtcctgaagc agatcataat ggctggcaag 360
tcgatgcagc tgctgaagaa cctgcagtgt gcgg 394

<210> 320
<211> 393
<212> DNA
<213> Homo sapiens

<400> 320
gacttagcga aatgtcagca gtctatactg acacaccagc ctcatttaca aaaaggagat 60
attaaaacag tgacagtatt tttttttaa gctctttaca aatccacgtt ttatgtattt 120
tttaatgaca tgagctctcc aggaaatgta cctcatcccc gcagttttcc tccaagggga 180
ttcatttggg agcaaactgc agtcactttc acaagagtcc tctttgatgt caggagggat 240
cacgaaacct tgcaatgcca tgaactggcc atggttatca tcaaaagttc catgctaagt 300
gcataacttg gagctcacta taacctttgt ggatttccct aaccataaaa ccttgccgct 360
attttttga ggcttttct tttttttt ttt 393

<210> 321
<211> 417
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(417)
<223> n = A,T,C or G

<400> 321
tttaaaacct gaggtcagga gttcgagacc agcctggtaa catggtgaaa ccccgtctct 60
attaaaaata gaaaaaatta gccaggcatg gtggcgggca cctatagtcc cagctactca 120
ggaggctgag gtaggagaat tgcttgaacc caggagacag aggctgcatt gagccaagat 180
cacaccactg cactccagcc tgggcagcag agcaagactc catctcaaaa aaaaaaanga 240
aaaagaaaan gagggttaat cnttcanttn tggagggggn atnaataaan cttgtttgat 300
gttaaagggg gtaaggaggg agnggccttg aaacacttgt nttccaaact ntcctggagg 360
tttccagnan cnctactgtt cctaaanggg tttcattttt aacttcatct gttttgg 417

<210> 322
<211> 393
<212> DNA
<213> Homo sapiens

<400> 322
aattcggcac gaggggagaa gcctgagatc tgcagagaag tctgccaggc ggcctgggac 60
taaaagctgc agaagatggg gcatgaggaa gcagtgggca ggcagaagga gtgggcaggt 120
ggtctgctgc tgcctcgggg atgcagcttg agctggactt tctgcctggc tccgtcttgt 180
caccgagttc gcagcataaa cgtcatccct cagagacgct gactcgatct ctaataaaag 240
ctatcagcct gtcccccttt actacgagac cctcttagc tctgcagagc atccatcaca 300
gttaggcatt tttgcctttt tttccatcca cccacgcttc caccccacca ggacgtgagc 360
ttggacttca tcttgtcatc ccagcagcaa ggg 393

<210> 323
<211> 393
<212> DNA

<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(393)
<223> n = A,T,C or G

<400> 323
gtgatccaaa agctggtgga gcaccgcgtc atccccgagg gcttcgtcaa cagcgccgtc 60
atcaacgact accagcccgg cggctgcatc gtgtctcacg tggaccccat ccacatcttc 120
gagcgcccca tcgtgtccgt gtccttcttt agcgactctg cgctgtgctt cggctgcaag 180
ttccagttca agcctattcg ggtgtcggaa ccagtgcttt ccctgccggt gcgcagggga 240
agcgtgactg tgctcagtgg atatgctgct gatgaaatca ctcactgcat acggcctcag 300
gacatcaagg agcgccgagc agtcatcatc ctcaggaaga caagattaga tgcaccccgg 360
ttggaaacaa aagtccctga cagctncgtg taa 393

<210> 324
<211> 383
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(383)
<223> n = A,T,C or G

<400> 324
tttgaatcta tgatctgttt ccttgaggga tttttgctaa tctgtatttc aatttcccag 60
gtcctagaat ttatgatttt ttttttaaa aggttagtac ctaacaggga gaggcagcct 120
cattgttttt agtttctagt tggggggaac tcagccctag ggttgtatac ttattaatcc 180
cattttaggg ctttgcacat atccattgtt attcagggtt tttctctggg cccttccagt 240
ttattttctt ccttaactgg actcttttaa aaaaaaaaac aaaaaaaaac tttttngntt 300
tttttttngg nanaaagnaa aaaaaaangg cccctnnttt tttnggncan ttnnnccntt 360
acaaaaggcc cnncnanaga aac 383

<210> 325
<211> 406
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(406)
<223> n = A,T,C or G

<400> 325
aattcggcac gaggttggcc aggctagtct tgaatttctg acctcaagtg attcatctcc 60
caaagtgctg ggattacagg cgtgagccac cacggccggc taatttttgt atttttagt 120
agtgactggt ttcgcggtgt tgaccaggct gattnattaa ctgnntgatt ttggngaact 180
gcctgagagc ntttnctatg ncnnccngna ccaccncctt tgantaattc tttttnaga 240
atcaagttgg ttgangcann aaattgccct aatgcttntt ggaccacact gcttncctna 300
cngaaacnna aggaatattn ttttgcanct nantgtcana ctntnaattn ctacngnaaa 360
aaccttttac ngnctggcaa catgganaat tctgtctntc cnaaaa 406

<210> 326
<211> 407

<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(407)
<223> n = A,T,C or G

<400> 326
aattcggcac gaggaagcca tctgggagcc agcacagaaa tcttgacagc caagtactca 60
gcaggccgga aagcagaaga tggaccctgg agggactgac tgtgtgtcag gcacagggtt 120
agggactagg gataagatct ggtccccact cttaagctta gacccatgga ggagctctga 180
atggttgtac cctgttaagc ttaggcagag gattcaaagg gtgctgtgag gcaaggtggg 240
aggttgggtg ggttatatta gtattctgaa gagtaataga accaataggg tgtgcgtgtg 300
tgtgtgtacc atatgtaggt agagggtggg gttgntaagg aattagctta tgcagcatgg 360
aggcccgaga antcccaaaa nctgcaccac ccatangttc caggttg 407

<210> 327
<211> 407
<212> DNA
<213> Homo sapiens

<400> 327
aattcggcac gaggaaggcc agaagtgtgc ctgaaagata gcggcggctg gtggccctgg 60
gatcagccaa ggcttgcctg actgacagta ggacccagaa ggataaagag tttgctgaaa 120
acactgaaaa cttgaaaacc aaaatgtcag aactaagact ctgctgtgac ctccttgttc 180
agcaagtaga taaaacaaaa gaagtgacca caactggtgt gtccaattct gaggagggaa 240
ttgatgtggg aactttgctg aaatcaacct gtaatacttt tctgaagacc ttggaagaat 300
gcatgcagat tgcaaatgca gccttcacct ctgagctgct ctaccacact ccaccaggat 360
caccacagct ggcatgctca agtcagcaag atgaaacatc tattatc 407

<210> 328
<211> 410
<212> DNA
<213> Homo sapiens

<400> 328
gcattgtatc tgcaatttgc tacacagtcc ctaagtcagc tatgggaagt agcctctatg 60
ctctagaatc aggctctgat tttaaatcta gagggatgtc tgccgcgagt cgtgtgatat 120
tcgggcctgg tgtgaccatg tccacctgtg atgtcatgct tattgatgac agcgagtatg 180
aagaggaaga agagtttgag attgccttgg cagatgcctc tgacaatgtc cgcattggaa 240
gggtggcgac agccaaggtg ctcattagtg gtcccaacga tgcctcgact gtgtccctgg 300
gcaacacggc tttcactgtc agtgaggatg caggcacagt aaagattcca gttatccgcc 360
atggtactga cctctctact ttcgcatctg tctggtgtgc aacgcggccc 410

<210> 329
<211> 412
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(412)
<223> n = A,T,C or G

<400> 329

ctcggctccg cctggtgcgg ccgcggccgg gagggactgg attatgtcgg ccccgtttga 60
ggagcggagt ggggtggtac cgtgcgggac cccgtggggc cagtggtacc agaccttgga 120
ggaggtgttc attgaagttc aggtgccgcc aggcacgcgc gcccaggata tccagtgcgg 180
cctccagagc cggcatgtgg cgctgtcggt gggcggccgc gagatcctca agggcaaact 240
ctttgattct acaatagctg atgagggaac atggactttg gaggacagaa aaatggttcg 300
tattgttctt acaaagacaa agagagatgc agcaaattgt tggacttctc tactataatc 360
tgaatatgca gcggatcctt gggtgcaaga ccaaatgcan agaaagctta ct 412

<210> 330
<211> 408
<212> DNA
<213> Homo sapiens

<400> 330
aattcggcac gagtgatcac agatgatgga attcgtcacc tggggaatgg ggcctgcgcc 60
catgaccagc tggaggtgat tgagctggac aactgcccac taatcacaga tgcatccctg 120
gagcacttga agagctgtca tagccttgag cggatagaac tctatgactg ccagcaaatc 180
acacggctg gaatcaagag actcaggacc catttaccca atattaaagt ccacgcctac 240
ttcgcacctg tcactccacc cccatcagta gggggcagca gacagcgctt ctgcagatgc 300
tgcatcatcc tatgacaatg gaggtggtca accttggcga actgagtatt taatgacact 360
tctagagcta ccgtggagtc tctccagtgg aagcaacccc agtgttct 408

<210> 331
<211> 483
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(483)
<223> n = A,T,C or G

<400> 331
ttttgaactc ccntatacan ctactnggtt tttgannncc natnncaacg antcgctagt 60
tgcanggaag acacaaataa gaaaactata tagtatgcta gagggtgaca tgctctaaga 120
aagaagataa ggcaggaaag aggattggga ggcacagaaa ttgagaggac aatattacaa 180
aggtcacgga agacccttgat aagaagggag gcaaggaagg gatcgttgta tgtagcttct 240
ccaggcagaa agaagagtga atgcataagt attacaacag gaacacccct ggtgtgttca 300
agtaccatta caggacagcc ccactaanct agttcagaga cagaccagga gagattaaga 360
ggaaatgggg tcaaagcagg aaagaagcca gatcctgtag tgtaatgtag gcacaggcag 420
gggcactgac tttcactcga ctaaaatggg atcccctggg aaacttggag cagaagggga 480
acc 483

<210> 332
<211> 455
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(455)
<223> n = A,T,C or G

<400> 332
ccccttgacc ccncttgact ttcgcggacc atcgaacgct gcctaaaaan caaaaattag 60
ccgggcgtgg actctatctc aagacaaata aaaaaataat aaagacttgg cttcaccaca 120

tagtcactgg ggaactgtag gcaaattgct tttttgtgga catccacaat tatcccagta 180
ctgtttattg aaaagctgtt gtcctttctc cactgtactt caatgccacc ttggtcataa 240
agcaactgtc ctttcctgtg agggtctgtc cctggactct attctagttc atggctttat 300
ttatctatcg ttgtcccact accatactgt accttttttac tgaaacttgg tcttttttta 360
ttgagtgtct tggctcttgc atttccataa gaactttaca atcagcctct caagagccac 420
caaaaaaccc caccataatc accccacttt ttgag 455

<210> 333
<211> 465
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(465)
<223> n = A,T,C or G

<400> 333
tttaaacacc tcttgntntt tctgnaggat nccntcgnat ccnattcggc acgagggagg 60
ctgaggcagg agaatcactt gccacgatgc ccggctaatt tttgtatttt tagtagaggc 120
agggtttctc cattttggct aggcttgtct cgaactcttg accacagatg atccgcccgc 180
ctcagcctcc caaagtgctg ggattacaga catgagccac tgcacccagc ctgaaaattc 240
aattttatgc aatccactca ctcggaactc aaaatgctaa atatatatta ttatatgctt 300
taagttgctt tatgcattgc ttatacatgg atgcatataa ttgaatggag ttacaaacct 360
tgcatattat tcttgatagg taatgtaaag atgttccaaa gtggttttca tcatatgtca 420
ctttcaaatt acataatttt agaagccaat cactgaataa aatgt 465

<210> 334
<211> 426
<212> DNA
<213> Homo sapiens

<400> 334
aattcggcac gaggcaaggt caaaaattta catcaggtat ctgaatgtgt agcatataca 60
actgagtgtt gaaagaagac aaaatcgttt tcatcacgaa gaatatgtgc tcagtaagaa 120
tcagaatgtt caattgtgtg aaggtgggag atgggaagat tggtattatg gcctggatcc 180
agaaatcagt cttccactat aggaaatggg aatttaaaga tgatcagaag acagttggga 240
gcagagtgag aataagaacc ctcaactgct gtctcacctt tcagatcacg aagaagtttt 300
ttacaatgag cagaacactc aacctgaaag cagaatggat tgagtcactg cagcgtggca 360
gtggaatggt gtttgatgtt ggcaaaggaa acatgtactt ctagactggc agttttccct 420
taattt 426

<210> 335
<211> 426
<212> DNA
<213> Homo sapiens

<400> 335
aattcggcac gaggcgaggg gcaggctgtg tccaacctct cggggcaggg caagcacggg 60
aagaagcagg tggacccgct caccatctac ggcatccggt gtcacctttt ctataaattt 120
ggcatcacag aatccgactg gtaccgaatc aagcagagca ttgactccaa gtgccgcacg 180
gcgtggcggc gcaagcagcg gggccagagc ctggcggtca agagcttctc gcggagaacg 240
cccaactcgt cctcctactg cccttcagag ccgatgatga gcaccccacc tcctgccagc 300
gagctcccgc agcgacatcc aggttcaagt acgtgcagct ggcgccagtg agtgaccaca 360
cggtcggggc acagacgggc gaagccctgc agcccacgct caagccggag atgcactcga 420
gcaccg 426

<210> 336
<211> 426
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(426)
<223> n = A,T,C or G

<400> 336
aattcggcac gagacagctt tagaaataga taatgcggtt gtggcaaata gcctaattga 60
catgagaggc atagagacag tgctactaat caaaaataat tctgtagctc gtgcagtaat 120
gcagtcccaa aagccaccca aaaattgtag agaagctttt actgctgatg gtgatcaagt 180
ttttgcagga cgttattatt catctgaaaa tacaagacct aagttcctaa gcagagatgt 240
ggattctgaa ataagtgact tggagaatga ggttgaaaat aagacggccc agatattaaa 300
tcttcagcaa catttatctg cccttgaaaa agatattaaa cacaatgagg aacttcttaa 360
aaggngccaa ctacnttatt aagaactaaa gatgaaaata agaanaaata tttctgaaat 420
tcggga 426

<210> 337
<211> 414
<212> DNA
<213> Homo sapiens

<400> 337
aattcggcac gagatacctt agagcaaaat ctattagtct ctctcagttt atcaatttaa 60
atggctttag gcttataggg ggtgtaaact ttaagaatat aattctccca ttcaagttta 120
cagcaaacat ctagccacct tcaaaacaaa gaagatacag accatcattt agcaatacta 180
atacatgatt ttccttgggg atggcaggtt tgagaatcct ttagcaacag gacatacttc 240
ccctaaatta cagtgaatta tttataacga gataaagctt tcaggtacaa gctgaaggcg 300
gggtgtctaa caactaaaaa ctatcactaa atctcaaaga gaaagttctt gcaaaatatg 360
taaagttcac aaggtgcaga cattttcctt ctttaggctt ttatctaagg aagg 414

<210> 338
<211> 419
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(419)
<223> n = A,T,C or G

<400> 338
aattcggcac gagaaaggaa ctaaatagtc tcaaaggaca ttatcatcca agttatgata 60
gtgatttcgc tttctttaaa aaaaaaatta ttacagatag agtttcttga tgttgcccag 120
gctggcctca aactcctggg ctcaagcagt cctccagcct cagcctcccg agtagctggg 180
actatgagaa tatgccacca tgcccagctt tattttgctt tctaatgtgc ctttttgtag 240
ttcctgcaaa gcataagcat gccttcatct gtggtaccct ttccaatatt ttatttatct 300
cacatcacta ataagataaa tttatacagc cactgctctg tgccagacat tatttaagaa 360
gttatttcac gcattatctc atctgccttc caaaacaact cttaaatagg natcacctc 419

<210> 339
<211> 409
<212> DNA

<213> Homo sapiens

<400> 339
aattcggcac gagcttgagc ccaggagcag aaggttgcag tgagccaaga gcctgccact 60
gcactccagc ccaggtgaca gtgcgagact ctgtttcaaa aagcaaaaca aaaccatctg 120
ggtgacttta aagataatcc agttctggcc aggcacgatg gctcacgcct gtcatcccaa 180
agtgctgaaa ttacaagtgt gagtcaccac gccaggcccc tctgctcttt agatgtgtag 240
tagtttgatt tttttgtcct ctagtgatgc tgcagctcag agacaaaggc agaatcttta 300
tcctgatggg caacaccgtg tcatctggct tctgtgacct cattggtttc ttgactctgg 360
aacagggagg gctgtgtcaa aggggtctcc ttcccctgtg gctctcatt 409

<210> 340
<211> 419
<212> DNA
<213> Homo sapiens

<400> 340
aattcggcac gaggaggaag atgccttctt ggcctgataa tgtgacagcc acctgctgtc 60
actcattttt ttcagtgctc tgaagatgac cagaacctgg tcatcaggtc tcctttaaaa 120
agaacaaaac acagacatgc ataaaatcat acagcataaa aggatgatgt cattctcagg 180
gagacagggc agcatgtgcc tgtgttcctc atctactctt gaaggcatca ggtctcttct 240
atttcacact gccagttgct acctaaaaga gggaacttct cgaggagaga tggactttca 300
tgctcagtga cttagaaact gtgttagagc tgactgctat caaataagca taagactgct 360
ataaataaaa tagataaata tcaaacaagc acaaataaat aagcaaatac ataagcaat 419

<210> 341
<211> 420
<212> DNA
<213> Homo sapiens

<400> 341
aattcggcac gagctcaagt ttcttgagtt gctgcttgtt aacacccagc ttttaactga 60
gtgtttgctc ctgatggttt aggagatttt catgttgtat cacactgtca agttttattt 120
tgtcttttta tccctccgtg gatgtgagtt tgaaacaagc acggtacagt aatcctgcct 180
gatagagtag tctggaatga gaattacttt ttgggtgaga gagttctcca ttttaatgtt 240
tctaaagttt ttcatatgaa cttggcattg gaaaagggag gtaaagaaaa aggacgttta 300
ctaaaagcag tgtctactct tccccttgt gagtgtttat tcatggctaa tgaaaaaaga 360
gaaggactct tgggttttgt gttgccatgt taagcatgga gagggatgct tgacagcatg 420

<210> 342
<211> 409
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(409)
<223> n = A,T,C or G

<400> 342
aattcggcac gagatagtca cctacattca gagaactcag gacataaaat cagatgctgg 60
tatgcagcca agttcaggct cgtacaggtg gaagcagtga aggtcattcc gtagggaggg 120
agaagtaagt agatttcatc tggaaagaag catagatgag aaatgcagct ctggagagag 180
ggcagccatc cacatgcaga gcaaaaatct ggatgcctaa agactttcca ggtgtgggcc 240
tgtttggagt tcttggagtg gtctagtacc ctttcagtta actcngtttt tatgtaagct 300
ttctgttatt ttcagccgaa ataactttga gttagactta atacagagct ctgcacagca 360

cttgtaaaat ttgaaattta gaatcatctt gtcagggatc atggctctt 409

<210> 343
<211> 424
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(424)
<223> n = A,T,C or G

<400> 343
aattcggcac gaggaattcc cttagcattt tgtttctcgc tctataaaga cctataatgt 60
aataacatct ttatagtatt tgagaactta ttttctcctc taaatttata agcaatgtta 120
aggtaagccc ttcatctttg cttatcctct aataccaaac aaacttccat aaaaatagaa 180
ggatctcaaa aactaaattg aaaaagcagt ctagttgaaa aatagaggtg ctaaagtaag 240
ttgatggctc ttaaatgatg ccaggacatt cttagagtag tgatggctct ttgggtttgg 300
tggtaactta gaagggaaaa aaaaaatctg caggaccaca tgaccgctag ggaaacaggc 360
atcaccaacc attccagaaa gctgctttga acaagcctta tataanaaag agagaaagca 420
cttt 424

<210> 344
<211> 411
<212> DNA
<213> Homo sapiens

<400> 344
aattcggcac gaggagaaga tgaggctgca gatgaaaacc cagagtctca agagatgctg 60
gaggagcaac tggtgaggat gttaacccga gaagtcatgg acctaatcac ggtttgctgt 120
gtttcaaaga agggtgctga ccacagtagt gctcccccag cagatggaga cgatgaagaa 180
atgatggcca cagaggtcac cccctcagct atggcagagc ttacagacct gggcaaatgt 240
ctgatgaagc atgaggatgt ttgtacagcg ctattaatta cagccttcaa ttccctggcc 300
tggaaagata ctctgtcctg ccagaggaca acctcacagc tctgctggcc tctcctcaaa 360
caagtgctgt cagggacact gctcgcagat gcagttacgt ggcttttcac c 411

<210> 345
<211> 416
<212> DNA
<213> Homo sapiens

<400> 345
aattcggcac gaggcctgct ggcctactca tgtgccattc tcagtgataa gtcctttgca 60
tgtgtcacac aactaatgat ggagagtcgg gattcagacc ccaggaattt gacttaagat 120
ctcatgttct taaccacttt cccatactgg ctccttcatg gcaaaaaggc tcatgacaag 180
gaaaaaaacc tatcacaaag tctgtgtacc aagatgcaag cattgtactt ctgtgtgtaa 240
agagacagta tctgcacacc ttacttagat ccttttccct cttactctga gacacaatat 300
caacaaaatt ggtaatcttt atatcccatg tctcagtatg tgaagagtat taactaggag 360
aatttcaagt agaggccagc tggtaactac cagctacatg aaaggctgat ggagag 416

<210> 346
<211> 415
<212> DNA
<213> Homo sapiens

<400> 346

aattcggcac gagaacaaag gaagcaggaa aatgctctta aacccaaagg ggcttcactg 60
aagagcccac ttccaagtca ataaaaagca actcctgcct cccttcctca ccctgtctct 120
ggatttcttt tctatcacct agatgcttca tccagccaga agatagcctt cacgttcccc 180
atctgtcttc agagcaaaag agctgggaca ccaagaacaa gctgttagat cactgcctgg 240
gaggcttggc ttagtactct catctctggt tccattccag ttcagctaag tcttgcttta 300
aaatttttac ctcctagctg ggtgcggtgg ctcacgcctg taatcccagc actttgggag 360
gctgaggcgg gcagatcaca agatcaggag ttcgagacca gcctggccaa cccag 415

<210> 347
<211> 406
<212> DNA
<213> Homo sapiens

<400> 347
aattcggcac gaggagattt tgtactattt ctgtatttct ttcttctcag aacaaccagt 60
gtcaccaggt atgagggcag agttttagct tgtttgctga gccccattct tgaagctcat 120
ttatttattc acctatctgt ccatcaatcc aacaaatata ctgaatgctg ctatgtgcca 180
ggtactggca ctgttctagg tactggggca atgacagtta agataatacc caatgaccct 240
gctctgtacc cttaagagca gactcagttg ggaatgagtt atccaaatat agggtgtaca 300
tgtagtcagg agagagcctc atacagcttt gcctttggca gaatccttca aacctctttg 360
tcttcctact tcttgatatt acaaatcatg agcctttcac atgcat 406

<210> 348
<211> 392
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(392)
<223> n = A,T,C or G

<400> 348
ctctactaaa aatacaaaaa ttagctgggc gtggtggcac acacctgtaa tcccagttac 60
ttgggaggct gaggcacaag aatcgcttga acccgggagg cggaggttgc agttagccaa 120
gatcgccctg ctgcactcca gcctgggcaa cagagggaga ctctgtctcc aaaaacaaaa 180
acaaaaactg ttagtgaagg ttccctggga cttttgatat tttaaaaatt gttcttatga 240
ctagtagata aattcattgc cataatgagg ctagctccca gataaacagt gtattttctt 300
cttttttttt ttnggggngg ggccaaanct ttaanctact tttccagtag ttngccantt 360
tntccnaggn agttgggctg ctntttcaga aa 392

<210> 349
<211> 396
<212> DNA
<213> Homo sapiens

<400> 349
aaaaaaacaa aaaagccccc catttataaa taaaccttaa ccacacacac acaaagtttg 60
ttgaatgagt atatatatac cactgatgaa aggaaggtga aatgtttgcc atacatattt 120
ttatgatcgt ttacctgaaa ttaacctttt aaattacata accaattgtt ctaaatcaca 180
ttagataaaa gggtttctac tgcataatat ccataatata taaagagctc ctaaagatca 240
ataagagaaa ggtcccacta caaaaagcaa aaagtggcag aagattatac atgggcattt 300
cccaggaaaa gaagtactgg tgaataaaaa agaaaagatg ttcaaattga ctctggttat 360
tagggaaatg taaaccgttt ttcaccagac agattg 396

<210> 350

<211> 402
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(402)
<223> n = A,T,C or G

<400> 350
aattcggcac gagcctcacc ttacctcaag tgttctcctg aggaccctta ggtcagacag 60
agaagctttc tctttctgat gggaagggtc aaagtggaaa tctcttatct ctagtgtgaa 120
atgattttct gctttttcat actccctgcc ctctttcttt tccttaataa atcttccatg 180
tttaagatgt tggcctgaag atctgtccca ttcataccat gcaccagctg ggactgtccc 240
tatctgatca gaggggagat taaagaatca atgttcccag gggaaagggc cttaaattgt 300
ttggcttttc aatggctgac actgtctnca actctccctt ctccttnttc tcaagcttct 360
atgcacccta ctttccancc aggatggttg gcactgatcc ca 402

<210> 351
<211> 406
<212> DNA
<213> Homo sapiens

<400> 351
aattcggcac gaggttccct ttggggggaa gatgttggac ctttattatt tgtggtaacc 60
agccgaggct ggttgtcagg acagcaggtg agccacttta gggaagaaag tgcaggggtg 120
ggtggatgcc cagattacca aggccagcca ccctgatggg gtagggtctg gttatctgtg 180
ttcaagaagc aaatcccacc ccagccccag cactagctct ctatgtatgt attttccctg 240
tacaatgttt tataaaagag atcattaatt tatctgctat gttaaggctc gaggggtggg 300
gcgtagactc tcagctgtat attgctctgg ggtgggcagg gaaggctgag tctcacttga 360
cttggaagat aaacaggcca gtttggactg gcctccactc cgtggc 406

<210> 352
<211> 403
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(403)
<223> n = A,T,C or G

<400> 352
aattcggcac gagatctcta ttgatgcttt taatgcattg cctgccttca ggttttcttc 60
ttaccccacc cctcaataag atttggtgaa ttgtaattct agtaaaacat gtcataccat 120
tggttttcct aaattatcaa ctttctttca ttaaaaaaaa aaaagcccan catggtttga 180
ctggatanac ncccataatt tattatgaan anaaatttcc atgttngttt ntgttcctaa 240
accaaagnac gaggtccntg ggaattnaag nanctnccca ttatntatta ttanactgca 300
ngttcctgca anaactgttt agttnacagc cccgtttcnc cagnggagtt ntgggcagnn 360
attgctgccn aaggcatnac tgcgttngct nactctanac ttg 403

<210> 353
<211> 399
<212> DNA
<213> Homo sapiens

<400> 353
aattcggcac gagaattcac agtttgcata aactgtaaca tttcatacta tgattcaaag 60
tactacttta aaaaataagg gccactcagc agtaacttta acaattggga ttccaccaca 120
gaagagctct tgacttctgt gtgtacattc tttcacagag tgaatccttt cccagtttca 180
agtatccctt tctatctctc actctgtagt gagttaagaa aggagaaaaa aaagacctcc 240
ccatttttcc tttcgtgagc acaacgacga ccacaaagcc attcctcctc cccgctgtgc 300
aatcgaaaat gaaaaggctg ggtggatgaa tagagtcccg agggttcctt ttcttctggt 360
agtgctcaaa ggttcacttt caacctggcg cagactttt 399

<210> 354
<211> 432
<212> DNA
<213> Homo sapiens

<400> 354
aattcggcac gaggtatagt cagtgatggg gaatagtcca gaaaggctga aacacagcat 60
gtgatgtgag tcaaggtagt tgatgcccaa ctgtgaaggg ccgttctaat ctagcatgga 120
ggtagacagt gtttccttaa tatggctgca tatcagaatt acctaggtca ggacgaggca 180
tggagatgct actttaatag gccctgccgc agatcttcca aaccagaatc ttaatcctgg 240
agtctaggaa tctttatttt tcacacaact catccaagtg gttctgataa aatcagtcca 300
gcacttttag aacccactga taacagactt attcctggag acagcatttg aggaggaatt 360
gaagattttt ctaatgaaaa gaaaaagggt cacatgaaca gatgttgcag tgtcctgtgc 420
cagggatttc at 432

<210> 355
<211> 416
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(416)
<223> n = A,T,C or G

<400> 355
aattcggcac gaggtgacgg tgagtgctcc cttgtccttg tccctgggag ataaaaagtc 60
tgttttctac agctgatgtt cccaaagtgc agtggacaaa aataaccaac tgggcttccc 120
agtgggcggt acccttcccc catccagagg ggctttgaga cgtgtccatc actcctctaa 180
ccagtcaccc tttctcttta gttctggtct tagggaagcc atactgaaga gctgccctcg 240
gtcgtgagcc ctaatgagcc catgtctctt ctgagagtgg attacagtct ttgtcctgtg 300
caacccccct ccctttctgt ccccccttagg cagaggtgca gcctcagtgt ggaagagccg 360
ngggattctc ttcaggcact gaaaacccac atggagtgaa ggctgcacca gggggc 416

<210> 356
<211> 417
<212> DNA
<213> Homo sapiens

<400> 356
ctttattgtg gtgggctact gggaacgtta tttggaaaca ttcctgtgga aaaccactct 60
tctcttcccc acaatgttgc tcacagtata tttgtattgg ctgtgtagat gggaatttac 120
tctgctttac tcactttgga gaacaggttt ggcagttctc taccagtgga ccaatctttt 180
catccccgtg tacctcacca tcagagcaaa aaatattttt tggttcccat gattgcttta 240
tctactgttg taacatgaaa ggtcacctgc agtggaaatt tgaaactact tcaagggtct 300
atgcaacacc gtttgctttc cataactaca atggcagcaa tgaaatgttg ctggcagcag 360
catctactga tgggaaagtg tggatcttgg aatctcagag tggacaattg caaagtg 417

<210> 357
<211> 378
<212> DNA
<213> Homo sapiens

<400> 357
aaactgtcct actgtatgta gtgacctact tgaagttccc cttagggcaa catatataaa 60
aggtgaaaag tattatgatt tgtgatacat acacaggctt atttagtttg aagtgtttgt 120
actgtttact ttgacctatt atctgtcata ccttttaggt gtgataattc aacttaattt 180
tctttaccaa gatccacaaa ccccaaataa ttactttttc tcttcccatt tcctccaggg 240
catacacaaa ttgcagtgtg ttctaaggca ttacaaagta acaaaataat actgttagat 300
ttataaaatg agtcctaata agacatttca gggacatgtt gaagcatcat cagttgtaag 360
ttagcactat taaaggat 378

<210> 358
<211> 384
<212> DNA
<213> Homo sapiens

<400> 358
ggtcttctct tccatttttt aaaaaagaat tttgacctac accaagcaag gcagagacca 60
gagtcagtcc cccttgggga gcagtctgtg gttttgataa tcaccacctt gggatgaaca 120
tggctggtga gctgcagagc agttgatttg acttttgggg atggttctag gctggatgtg 180
atacagggca ggttttgtct ctagagaaag ttctcatgac cttcaggtct aatgagattc 240
agatcatcac tttggtttgg tttgaaattt ctttgtttat ccagtgaatt acaagtagaa 300
taaagatctg gttctaaatt gtcttttggt ggtgaagtgc catagaccat ttcggaccat 360
ttctatgatg taccagcagc cccc 384

<210> 359
<211> 404
<212> DNA
<213> Homo sapiens

<400> 359
aattcggcac gaggagagaa ggcaaacaag gatgcagaac agaaagaaga cttttcagga 60
atgaatggtg accttgaaga ggaaggaggt agggaggcta cagatgcccc tgagcaagtc 120
gaggagattc tggatcacag tgagcagcag gcacgccctg ctcgtgtaaa tggaggcacc 180
gatgaggaga atggtgagga gctgcagcag gttaataatg agcttcaact ggtcctagac 240
aaggaaagaa agtctcaagg agctggcagt ggacaagatg aggctgatgt agaccctcaa 300
agaccaccaa ggccagaagt aaaaattcca gtccagaaga aaatgaaaac aaccaacaaa 360
acaaggacta tgctgccgtg gcttagaaga tttttaaaaa gaga 404

<210> 360
<211> 279
<212> DNA
<213> Homo sapiens

<400> 360
aattcggcac gagtgacctt gctttgtcat ctgatgttaa caggagtctg taatattcat 60
gccaccaccc aagagtccca tttacaaagg agcagacttc tggtcttctt tagccttttt 120
tgtttcttcc aacaaaaatc caggctggag tggattaggg caatctcagc tcactgaaac 180
ctctgcctcc caggctcaag tgattccctt gcttcagcct ccgagtagct gggattacag 240
gcactccacc accacatctg gctaattttt ttttttttt 279

<210> 361
<211> 199

<212> DNA
<213> Homo sapiens

<400> 361
aattcggcac gaggtcattt atataaacat tttaaaaatg acaggaacag tctaattacg 60
ttaagtcaat taagtttttt ttttgcttga ttgtttaatg ctcttatgaa aaacacatat 120
ttgtaaaaga aattatttgc ctagaaaaat ttaccatgca atatatttca tcatattgga 180
gttccttttt ttttttttt 199

<210> 362
<211> 475
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(475)
<223> n = A,T,C or G

<400> 362
cctcattggn acctnagacc gctcttggac tttatgcagg ancccctcgat tcgaattcgg 60
cacgagactg ccttacaacc ttattcctct tcattttgtc ttctcactta cctgcagaaa 120
cccagtttat ttttgttctc cctttaccac accagccttg taactgttat gaatgaccct 180
caatctcact ggaatctgaa tcactcagga attcaagcaa actggatgtt ttaaccactg 240
ttcagctttc ttatggaatg acagagaact tgtaaagata aaacaccagt ttgcaggaag 300
aaaggaagag aatggaaatt gcttctggaa aatactagtt ttacaatatg ttttgtttgc 360
tgctctctta aataaactta atcctataaa catttttttaa gaactagcca ttaagactgn 420
taagttctca attataaagg aataaaatgg tttaaggagg attatttgcc ttgct 475

<210> 363
<211> 438
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(438)
<223> n = A,T,C or G

<400> 363
ctcgggtaac tgaaaccaca gaaagcaaaa catggataaa gtggggtcta ctgtaggggc 60
aatgtttaaa agcatttgaa ttgctcttgt atgccttact ttgagattaa ttgtataagt 120
tttcagaatt attgatcata tcgaaattta aatttgatgt gaaggaagta tcttaggaga 180
agctaaaaaa tacataaatg aacgaagact ggaagaatct tcaagatgtt aaaaactcat 240
ataaccacag aaataaaaac tccaattgtt aaagtcatag taaagagaag gaagcaaatc 300
ataataggtc aaaatataaa gataaaatga ccactgaaag gataataaag attgtgaaaa 360
tcaggacact ctcaaacaga aaccaaaagc ggaagagaga tgaaagcnag agcaaagtnn 420
gacacaattt gtacgatc 438

<210> 364
<211> 435
<212> DNA
<213> Homo sapiens

<400> 364
aattcggcac gaggagctct ctttcctgcc agagtgtggt acatttattt aaaacaagtt 60

tttgtgtgtc ttatacgtgt ttaaaataca tacagaactc tgattaggga gtgttgtgaa 120
catctggttt ctgagaatga atttaggttt caatagcaaa agtcattgtg gccgctcctt 180
taggaaagtc atttttctcc tatgagtagt catccccggt agacttgact gaaatcctgt 240
gttttaggag gatttggggg gtgcccctgt cctcccttcc tctcattaca ttgggtcaaa 300
ttagttttgg gttttttttt tcccacaagc ttcgcttttc taagaagtac acatttggcc 360
caaattcacc gggataagtg agaacagcca gaagcataaa atgtgatgaa ggtttctcct 420
gggaccttat tttac 435

<210> 365
<211> 423
<212> DNA
<213> Homo sapiens

<400> 365
aattcggcac gaggcaagat acaggcttgg accattagct ggaaatatgg tgagaacaga 60
cacagacacc ctggggtcgt cagctagcga taccagcatc agttttcccc agctgagaag 120
gcaaggaagg agcagggaca gtcctgagag ctgtggacac gccacacccg ctgttggcc 180
tggttaatgc cattgaacac ctgagcaagg gcaggcccag ggaggctgaa taagtctaga 240
ttcccatgtt gagtaattaa aagaactgac ttttaccaga tgaaggccag tttcaaagtt 300
gggctgcttc tgtgttacca ctgccctttt gctgtggtct gaatgtttgc gtccccacaa 360
aattcatatg ttgaaaccta acccccagat gatggaatta agagatgagg cctttggcaa 420
gtg 423

<210> 366
<211> 420
<212> DNA
<213> Homo sapiens

<400> 366
aattcggcac gagctgggat gatgatactg aatagtctgg aatgtggcat tctttgtctc 60
aaagagagtc tttaaaaaaa tctgtgttct gatggtagag ttccaatttt ggcattttgc 120
cttctgtgat aatagataga ctttgactct aggtaaattt gtggtggagc aaaagttcgt 180
ttggggttgt tccacttacc ccttactctt tgccctccct agtcatgttt gtcctctttt 240
ctttctttat aggcaatggc ctgatactca tagtcaggaa taaataaata gttatggttt 300
aaaatattat tcttgagagt attttcatct ttgtctggga acaaacatgc ttatttgtac 360
ttgagttctt gccttctacc atcatcactg gaaaaacatc tctgggtagt cactgcctcc 420

<210> 367
<211> 406
<212> DNA
<213> Homo sapiens

<400> 367
aattcggcac gagagaagat agaacaattg gatgagttac agaaagcaag caattacata 60
tttgcattaa agtatatttt ctttctattt aacctagact aagaactatg ctaatgatat 120
atttcaaata ataaataaaa tatcatctat agcctgagag agaggaaaaa gaaagaggtt 180
agaaggatgg aatacttgag ggagaaggga aagtgagcat agagttggtc aaaggcaatg 240
agatactgct cgtggtcatg gaaggtaaca tcacgccctc aataccaatg ccctataaca 300
gaagtccatt taaaggactt aacccagaaa aattgagaaa tgtcaagaat cttacagagc 360
ttctgtttgt atactgagaa tcagggaatg atcagacaag tgtatc 406

<210> 368
<211> 408
<212> DNA
<213> Homo sapiens

<400> 368
aattcggcac gaggggagaa tcctcaaaaa tagggatatc agatatttct tcgctttcag 60
aaaaaacttt tcaaacactt gaatgccaac acaagagaag taggagggtg aggagatcta 120
aaggttgtga ttgctgtggg gaaaaatcac aacctcagga aaagtcactc attgggttaa 180
agaatacaga aaataatgac gtagagatta gtgaaacaaa aaaggcagat gtgcaagcac 240
ctgtaagccc atcagaaact tctcaagcta atccatattc tgaaggacaa tttttagatg 300
aacatcatag tgtgaatttt catttgggtc tcaaagagga taatgatact attaatgatt 360
cattaattgt ttctgaaacc aaatcaaaag aaaacactat gcaagaat 408

<210> 369
<211> 399
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(399)
<223> n = A,T,C or G

<400> 369
aattcggcac gagacaagac tctgtctcaa aacaaaacaa aacaaaaaac tgggaagtta 60
tgagctaata cataaacctt cattgcacag tcttttaaaa tttgttgttt ctactttctg 120
aaaatgaaaa tattaaatcc ttcctgaaaa cagaaaatat caaaaactta actgcattag 180
acagagatat atgttaactt tgagtgcatt taattttgta ttcttgagta ctgtttaaag 240
tgtcttttaa aagttctctc ttattggggc tatttatttt attctgtttg cagtttttat 300
gccaacttta cacatttgta aatagaatat ttaaaaagaa ttttttttga gggattgatc 360
tctaacttct tggggactta tanntggtct tttgggtgg 399

<210> 370
<211> 403
<212> DNA
<213> Homo sapiens

<400> 370
ccattgctta tcttatattc taattcccag agcaccctac ttgaaagcca gttgtttagt 60
tgatcactag atatcaaagt gaaatgatca atattagttg cacttgcctt ttttggtcag 120
aaatgttgga ggcaattttg ggtggtagaa gcagtagttc gtttggtggg attgaatgtc 180
tccatgttta cttgtttcat ttcttattat gcagcagaaa tgtgatgggg cctggttgtg 240
tgtgtatagt ataagtgttg tcagttcctt ctaagacatg cgtttactgt ctaagggaat 300
tttgaacctc attcccattt accatgccaa aacatatata tctattttat gttgccttgt 360
ttttagcata agaagtatat ttacttaacg ttgcttgctt att 403

<210> 371
<211> 398
<212> DNA
<213> Homo sapiens

<400> 371
ctccacaaac cacaggcctc ggcgggggaa gagcccggcg ggcgccagcg aagcggaacc 60
aaacggagcc gcggcacgca ggcgcaaagg ctggcgttcg aggttcgttt acgcgccgct 120
tcgccgtgca ggtggtggcg aagcgctcct ccgaaaggtt tcggaagctg gtggtagctc 180
tgaagataac gctgcgttag ggcatactgc ggcggaggat ggaactccga ttgaaagcag 240
ttgctggagt ggagcacgaa tttcaacaag ccgcatgttg aagtgtgagg cgtgaaaggg 300
tatgtctgat atttgcttta aaatgctcca gcaaagaaat taagggatgg atgaagcaaa 360
agagccaggt atggtggctc atgcctctaa tctcagca 398

<210> 372
<211> 397
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(397)
<223> n = A,T,C or G

<400> 372
aattcggcac gaggtgnctg ttaattgtat taactaacat actagtgtct gttaattgta 60
ttaattaatg tgtgtacatt tctttttatt atagattcta aagcaaacta ctacacgtag 120
gccatcatgt tccaagtttt tgaaagttca tctttttcat cttgttgata aatttcatca 180
acttttatgt aggtaattca aatagaaatt tgggataaat tggactgatt ttttgggatt 240
attgagtatt tttatttcag ctcgttttac agcactgaaa gctggagtaa aagacattag 300
atatccctag tcacttgaga cttcatttta aaagccagtt gtactggctt tgccatggct 360
ttgtcttggt tttgatttct accacatttc ctcctct 397

<210> 373
<211> 393
<212> DNA
<213> Homo sapiens

<400> 373
caagcaccct cccaaacctt gtcttccctc ttctgttgca tcctttccct acccttccct 60
cccaggtgct cggtacttta cctagtttct atatatcagt gttttatgtt ggaatttttc 120
cttgttttta ttttactagt tggtaaaccc tgtttatgct gaaacaaata aggaaatggt 180
atatttgacc atatgtgtta ttcatagaag acagtatgat caaatgtgcc aaaaacaagc 240
aaacaaaact taattcctga gaagtatgcc ttatttttat tgatctgctt tgtcttacaa 300
ttaaggtcca agagcttggt taaactgtat tatttgccta agtataaaag aaaacttgaa 360
ctgcattgca atattgacgt tctttaaaat gag 393

<210> 374
<211> 396
<212> DNA
<213> Homo sapiens

<400> 374
aattcggcac gagctcattc ccatttacca tgccaaaaca tatatatcta ttttatgttg 60
ccttgttttt agcataagag tatatttact taacgttgct tgtcttatta tgagtccttg 120
ggcaaaacaa gaggcaattg tactttgttc tttgttggat gggtggcagt tttcagaaat 180
gcaacagatt tttaaatttc aaaatagcaa acaatggggt ctatctttcc tctgttttgg 240
ggaagtaaga ataataatta ttttctctcc tagcttttaa agatgaaaat cagtttttat 300
ttgatattgt aatttaggac atcattttaa taattttata tcatatgctt gtctcataaa 360
taatatacta tacaataaaa tttaatgagg acccac 396

<210> 375
<211> 396
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(396)
<223> n = A,T,C or G

<400> 375
ggaaaaccta acctgattag agccttgact attttgaaga ttaaatgcac actttttata 60
taatgtgacc agtttaaatg tagtttgtat tgtactgggg gaccttttgt tgttgttgtt 120
tgcttaaact gtgatttttt ttcccctccc taatttcagg ggtgagattg actttgggaa 180
gacagattag ttctttgtca ggccaacaag tgatggagtg cgggagagag aacttggcac 240
ccaaatatat caaactattc cgtgccgtgg atgttttcat tgccaacgag ggtgtaatga 300
tttgcttctg caccttggtc tagngctggt ttgnggtgtt tttgtttgta aattancctc 360
actgcctccc tgaaagtgca cagtcagccc aggtct 396

<210> 376
<211> 412
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(412)
<223> n = A,T,C or G

<400> 376
aattcggcac gagatttcct acaaaagctt gatgccatag agctcttact gctttaggtg 60
agaatttgag tctttgaatt atttgttttg aacttttatt ttggcagaaa tacctttttta 120
gaacaatggt tagctctaac ttaggacttt ggttttccta cgtcgcttta ttttcctttg 180
ttaaggttcg tggttaaaat accatatatc aggtttaaat gcttacaaga tttctttggt 240
gctgaaattc tggcgctgga ctgtggctga taaaatatta ttgtggtttc tttcactaga 300
agaaactttt catctgtaga acttcgtttt tagttgaagt cattgagcct ttctttactt 360
gaaaagaaaa ttaagtactt ttcttccatc ctntgaaaag ntaaatgaaa ag 412

<210> 377
<211> 387
<212> DNA
<213> Homo sapiens

<400> 377
gttacaagcg tgaaacacaa acttcagatc aaatctagag ttgcttcatt taatgcatgc 60
tagcaacagc cttaactttg gattcagtta tttgaaacac ttttccggca tctttccctt 120
tctaatgttg tggggtggaa accggatggc aaatcactgt gagccggata cctcagcaca 180
gtccaccttg tgtgtgactt cacaaatggg ggacttcaca aatggggtaa ctgaatgtta 240
ttactttcaa attttgacat ggagcattat gatcaaggaa atggagctgc cttatacatt 300
aaacccgtga tttaatccta ttgacatttt catagccatg cctccagatt ttatcttttt 360
ggcaaaattc tgattccaca gtttggt 387

<210> 378
<211> 392
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(392)
<223> n = A,T,C or G

<400> 378
agagaagaaa gagctgcaaa tccaggtgga gcactacgag ttccagacgc gccagctgga 60
gctgaaggcc aagaactatg ccgatcatag taagtggctg gcgggagcct ggaggcgcgc 120
ttgatgggcg ctgctctggg acggctctgg ttggggtggg catggagcgc cttccacaca 180

aggggacgag aggaagccca ttgggagcct cagccatgta ttccagctct ttgtactgct 240
gcctgtttct gtaatgggcc ccagattgtg tgtggaaata agtaaatcag gccactgtgg 300
cccatagcac ttttgcttca gagtgaattc tgacccccag atcacaagtc tgtggtcctg 360
aaggnccttn ctgaatcttt tnaacagagc tc 392

<210> 379
<211> 409
<212> DNA
<213> Homo sapiens

<400> 379
aattcggcac gaggatatgt tgagacaatg actttgggtc aagaggaaat tacatagctg 60
aaatattaag accttgaaca tagcagaaac ataaacctat gaacaacttg tgttttgtgt 120
gaaagctagg gtagctgata ggattagcag atattggtag aattaagagt caatatttaa 180
attattgcta aagattaaaa tccctcatct tatagtttgt aggggattcc atgatggtaa 240
ggtatagatt gaaattaaat ttagtaacta ggcatttctg accataccat ataaaaaata 300
attgtaatat ggtataaaca ctgattaaaa gtaattatgg attttcatgc ctgaagaacc 360
tttcagtatt cttacagcac tgtatcttct ttattggtga gaatatcag 409

<210> 380
<211> 409
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(409)
<223> n = A,T,C or G

<400> 380
ggaaatggag gtgagtgttg ccaaggcaat tgatgacctt attgttgacc tgcttgacca 60
aaagagaata aattattcca aaataagaac cttggctctt tttgctgggc tatggttgtg 120
ttccatttta aagttattta gaaaactaaa cacttgcaag aatctttgtt cttagaagga 180
ctgtattcat agaataagtg aaatctactt tgatttccga cttacccact cccatttttc 240
tcagatattt atcaagtaat gtggtttgta atccaaacaa aaaaaagtgc cttaatccag 300
aacatacaca tggagacaat aacagcagac tgatggtgtt tgtactttac taaaacattg 360
agatcttctc taaaacagag tggttgagaa catagtgcta aagngaaag 409

<210> 381
<211> 402
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(402)
<223> n = A,T,C or G

<400> 381
cacatcccac cctgcctccg ggaaggggcc tctcctggac atgtctcctg cagctgctgc 60
tgagccagat ggggaccagc aggacagaca cgtcagcaaa ctcatcctct gcttctttgt 120
cttcggcgcc gtcttgttgt gtgtgggagt cctgctctcc atctttgggt tccaggcatg 180
ccaatataag cccctcccag actgccccat ggtgctcaag gtggcggggc ctgcatgtgc 240
cgtggttggg cttggggctg tgatcctggc ccgctcccgg gcgcaacttc agctccgtgc 300
agggctgcag agaggtcagc agatggaccc cgaccgagcc ttcatctgtg gagagagccg 360
ccagtttgcc cagtgcctta nantttggtt tctgttcttg ac 402

<210> 382
<211> 388
<212> DNA
<213> Homo sapiens

<400> 382
aattcggcac gaggcagtgt ctccatcagc agtttgctct ccatgggcac acgatgacaa 60
aatatcctga agcgaaccac tagtctgacc tcagtagcag gattggaagc ttcatgccat 120
gggagctgtc aagaaaggca tcccaaagag aactgaaatt taaaaataat aatagacctt 180
caggaatagg tgattgtccc catatactgg ggatgaaata cccaatgtaa ccaaattccc 240
cagtaagatc acttagtttg gcaatagtct tttcttttga gcatgttgaa gtttatttgc 300
tcaatgaagg ctgaaattat aagtcagtat atatgtatta ctaagtagaa cttgaggtaa 360
ttatatgttt tagtcaaaag cagtttct 388

<210> 383
<211> 455
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(455)
<223> n = A,T,C or G

<400> 383
tttgnctttg anancgcacn cggcttttgc cntttgcagg atccncnatt cnaanncggc 60
acgagatcac tctcattatc actgctcatg cttcttctct cccactgcca gttatgattt 120
tggaggagtg gggactatga catgtttctt tgtatcatct ctagcacaat agtttgctca 180
ttgtcagtgc cctaaatgta tgcataaaat gaatgtgtga atgaatttga cataaatgaa 240
tattgttttt ggtacctcag ccattctttc ctttaatcgc tttccagttt ccccaggctt 300
cttttgcatt tatgttctcc ttccagtccc tcatataaaa ccctcctttc aggaaagaat 360
tgggtgagca tactcaaccc aagatattaa tggccaaaaa atgttagact tttgtggtat 420
acgcatttaa aagtgtagaa ctcggccggg cgcgg 455

<210> 384
<211> 429
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(429)
<223> n = A,T,C or G

<400> 384
aattcggcac gagaaaagaa atagggttga attctgataa aaagtgacct attagaaaag 60
tatttctatt cctctaggga catccgttca atttttgttg ttgcttcatt gatttttgta 120
aaaaggtgtt gccttttaaa aatcatttta gaaaggcaat gtcattttta atgacattac 180
taccatgcat agttttgtga gaaacctggc tatgttaaag ccatttcatt tgagatacat 240
tttgaattga aagttattct gttgttcttg ttttcagaag cagataattt tggcgatgtc 300
tgggccttct tgctgctctt tatctgttta cctacctgct tatcacaact aactttctgt 360
ccagntttttt ttaatcctta gtaaatcagt gnctaagaat ctttagtcac tcagttttga 420
ggatgactg 429

<210> 385
<211> 407

<212> DNA
<213> Homo sapiens

<400> 385
tttttttga attattgaga atatttcttt ggacccacaa ctataaaatg tgaaaaaaa 60
taaaaagtat gccaaaaggg ccacgtgttt ctacaacaca cgaaagtaaa gaataatact 120
gcatgtctaa tatgcaaata aaatgtctct gccaaaatat cacaacttaa aatgccatta 180
tgaaacaaac cacagaaaga ccttatttgt gttacatacc aggaacatac caaaatttga 240
atgtctgatc cacacagtga ttcacataag atgataaaga aacaaatgga tattttgtga 300
cacaaacgta ttgtgaagcc ttaatatcac agatttatat gcatttaatt aaccatatag 360
gctatctgaa aattattgat acatcacttg tttctagggt ctaaaaa 407

<210> 386
<211> 405
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(405)
<223> n = A,T,C or G

<400> 386
aattcggcac gagattacct ctaaaatata gacaggaata tgacattctt atttgaagga 60
aatggaaggt aattcttttc acaaacttaa gaatctttcc atgacataaa taaatcgagt 120
tttatttata agtaccctag tagctagtca catttctggt aacctcagcc aaaaaataaa 180
tctgccaatt ccttgagtca ttaaaatatc ttttacattt atattctgca tatttacttt 240
aatgatatct gnattttact gcacttagca cacaagttta acaaaatttt cccaggccac 300
aagaagataa aatatgacaa agagtaaccc agttttgaaa aatgaagaaa tgaatactct 360
attgaagcaa gtcagaatgc cnaagtcaac aatttatgaa ttttt 405

<210> 387
<211> 408
<212> DNA
<213> Homo sapiens

<400> 387
aattcggcac gaggttagat atagcgattg ggtagtggaa tgggtgttgg atgcaacagg 60
atcttggaaa atatttctgg gggttagagg ataggctgag aatattatag atgtttggaa 120
acatttgtgc caacctgaag atggtgtttc tttgtctctc ccaattagca cagctgtgtt 180
ctgttggtca tctggtagag tgatcaatct agagttagaa tacctaggga tgacataaag 240
gaatatgaca gtccggaaat ctaccagatg aagagccagt ctgagctcag aggggatttt 300
gagccaaggc atggcatttt atttttagat ggagctgaac attgtgatag taaccagcac 360
tagatgaact aaagttcagg aggaaaagcg gaactatcca aggtgaac 408

<210> 388
<211> 419
<212> DNA
<213> Homo sapiens

<400> 388
gtccccaggg gccgactctt cgcttttgac tcagagggaa attacatgct gacatgttct 60
gccacaggcg gcgtcatcta caagctgggt ggcgatgaga aggttctgga gagctgcttg 120
agcctaggtg gccaccgagc ccctgtggtc accgtggact ggagcactgc catggactgt 180
gggacctgcc tcaccgcctc catggatggc aagatcaagc tgaccaccct cctggcccat 240
aaagcctgat tacttgcccc aagggccacc cgaggaagca gtattatctg cggtgggggg 300

aggagatata ggacaggaaa accacgtgct ccactccagc tccctgcagt gcagtgactc 360
tgcagggaaa gactgcaagg aggctcaagt gcttccatct gtggtgactg gaatgggac 419

<210> 389
<211> 399
<212> DNA
<213> Homo sapiens

<400> 389
aattcggcac gaggttaatg ctttcgtctc ttgtaaggta aggcatatac tgcttgctta 60
cacaagaact attggcattt tctttttttc gtttgaaaca aatatgaaaa atagtatttt 120
ggttttaaga aatttttatt ttagcataca acatataact gacatttgtt ttttcttttt 180
tgtcttgtaa acttaattct taaaacttag gaaaattttt ggataggaca acttggtgat 240
tcagctataa cagatcttat ttcaataata actttctgca atatgtattc atacattttc 300
aaatgtgtgc cttaggaaat cacaagtgct tttatagtgt gaagtgttaa tggctgaatc 360
caactgaatc accaactagt aagtgggggt ctggttgat 399

<210> 390
<211> 400
<212> DNA
<213> Homo sapiens

<400> 390
aattcggcac gagcccagga gccctgctct caggatttac aacaccagaa tcccaagttt 60
tctgagaatc gggcatccaa ccctcctgct tcatcatggc aaaaaaaatc cctggaccta 120
gacccagata tccaggttaa gtccctggtc aaaaggacca cacatttccc tgatggttat 180
ccaccttgcc ttgccacggt ctgtgctcat ccctctctct gtccttcatt cctctctgac 240
atctttctcc cagagtaact gctaacttcc agtctaaatc ttgctgagga agaagagata 300
ccacctcatg attcatcttg gagtggccaa gcctccctcc acttgtttaa attgccccat 360
tcccggagac cttgccctgt gcccagcgct gggctgagca 400

<210> 391
<211> 403
<212> DNA
<213> Homo sapiens

<400> 391
aattcggcac gagggtggca cgtgccttta gttccagcta ctcaggaggc tgaggcagga 60
ggattgcttg agcccaggct gtgtggttca ccataattgt gtttgtgact agctactgca 120
ctccaacctg ggcaacatag tgggacttca tctctaaaac aaaacaaaac aaaattacac 180
ttaagcacta ttgtttaatt tttaattgtc agtttatcat tattttgggt aagacattct 240
ggggtttctt gaatcttgtc caaaaaccag ttgttttgga aaattgcttt aaattgagca 300
tatttatgta tattggataa aaatgtacta cagagcaaat ttcaaatttt tcattatatc 360
agtctttttg aaaggatcaa cttggataaa ataaatatat aat 403

<210> 392
<211> 401
<212> DNA
<213> Homo sapiens

<400> 392
cagctttttc atagtggatt tgatggtttt taagtaaaga atggaactgg tatgcttttg 60
aaatcagtgt ggcttaataa aatcctcatg tgtattttag caccctcatc ataactccat 120
acagtatact ttttgttccc cttttcattt tccatttatt cctggtttct ttgtatgtct 180
atgctgtcct ctctactatt ttcctcttcc tctgttttga actttttcct ttctctgaat 240
aacctaagtg gaatttcagg tggtctcatc tagccactca ggtgctaaac actaaatgat 300

tttatgcctg cctttatttc ccaaagacaa aaagtcactt atgtacaaaa gtgaaagtgg 360
tgctgatgca ggaaagccaa aatggagtcc taacacttgt c 401

<210> 393
<211> 416
<212> DNA
<213> Homo sapiens

<400> 393
ctgctgacca ccatacccca ctccagcctc actgagcatt tttgtgtaag gttagtggtg 60
cagttcattt agcaataaat actgttgtac cttttgcagt agacaactat taactttcat 120
ccttgattct cagtttttc caaaatacaa gtgaatacct ggtttcccca gcaacattgt 180
aagattgaga gtaggaattc attgagattt taatgaattc catggattgt cttaagagct 240
atctaaactt ggaagaaaaa taacttccag agcatctaaa attgaaaata aaagatcaga 300
agcaaatgaa agatcaattc cacacagctt ttcctctctt agacgtccct cttctgccat 360
atcctgtaaa catctgaagt gttctgagta catttggaga gaatatttaa tgatca 416

<210> 394
<211> 384
<212> DNA
<213> Homo sapiens

<400> 394
agcaacccta gcaatagact gactctacta caaaacaatt tgggtatttc tcttactatt 60
tctctattat atctgttgag ggaatgttat catgagcaca ggtattagtc ctatgctttt 120
aatcggttta gtggtttctt tgtgtctcat tttattcatt tgtaattttt ttaaagacta 180
taaaacttcc acagtttctt tagatcatta agttatatga ctctttttca tgggggtcag 240
ttaacaatac ataagaaaac attcgttcta ggataatata tgacctaaca gtcttttgtt 300
agacttagag atatcaatat gctttctatg tttcaggcat atttatatt cctggaaatt 360
aaacaatata ttttaggacc ccat 384

<210> 395
<211> 314
<212> DNA
<213> Homo sapiens

<400> 395
aattcggcac gagctgaggt ttctgattcc atatttaatt gactattatc aatagcctga 60
tattgaaaaa catttgtagt tttcagtgtg aaactaaggg gttgaagaat cactattaca 120
atccctatta cagagcattt cgggttttgc ttgtatttta gattctgata catacgctgt 180
ttcactcagg aactacttct accagttaat cagcattatc cagcacttgt ctttaaaatt 240
catttggcgc ttgtttgttt tcaactgagg aaattgagta tagttcattg aagaatggaa 300
ttttttttt tttt 314

<210> 396
<211> 315
<212> DNA
<213> Homo sapiens

<400> 396
gatatgcttt aaaattaagg tgagtggtat tatctctagt ttgagacaaa gagaagcgaa 60
gtaacaaaag gccacataag tgataaatag tggacctgga gtttaaacct gggatcccca 120
cctaattcag aaatacgaaa tcaaccactt ttttgatgat ccagggtcta tgtatattta 180
ttacatgtat gtatatatgt atatatatat gcatgtgtat atatgtacat acatacatat 240
agatgtgctt gtctagtgtt tttcccacca gataggtagc ctttcttctc cccttgctca 300
cttttttttt ttttt 315

<210> 397
<211> 386
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(386)
<223> n = A,T,C or G

<400> 397
aattcggcac gagatagtct tattttttat ttcagtatag ctatggttac ttttttcatt 60
ctgtgttttg tatatttgta tccttgatct gtcttgctag aggtttgtct ttttaattaa 120
cttttgatat tgaaaatttc caagcataca taagagagtg taaaaaactt gcaagcaccc 180
attactcaac tttaacaact atccatattt tgccatattt ttttttgcct tatcttttta 240
agaaatgtct tatacagtgg gtgaggtgga cnatgcctgn anttctngcc tctgngangc 300
ngganncntt cncnacnntt cganctcncc ctcntacntg nntnngncnn ncanngctnn 360
cnnnanncccc tggntcnntn nctcac 386

<210> 398
<211> 462
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(462)
<223> n = A,T,C or G

<400> 398
ttggcctttg gantntcaca cgagcttttg cangatccgn tggattcgaa ttcggcacga 60
ggcttctcct cctcttctcc agctcccagg cgaatcatac agaggtgtgc tctcaaatgc 120
acacacacat acattcactc agcagatagg tgcacactcc ccagaacaaa cccagtctct 180
gagcccccttt caccaccctc ccctctcccg agctcactcc caagggcctt gcctcagtgg 240
aacactgtga tttggacagg gaatgcatcc tgacttctgc acaccggtat atcacctttc 300
ctgcatcctt aattaaacaa atcctgagca tttacaattc aaccagtatg cattcagcac 360
ctactgtgag ccaggcccag ttctaggagg cctggagaga agggcggtga caaaagagac 420
caaaaatctc tcacagagat gataatgtgt cccacatcgc cg 462

<210> 399
<211> 420
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(420)
<223> n = A,T,C or G

<400> 399
aattcggcac gagaatagat gtatagttgc tgccatctcc ccatataaaa actctcttta 60
catcgtttct gagccacttt ctttgctgtc tgcagcattt aaaatatatt atttttccta 120
attagaaaag tcacaggttt tagaaaattg ggaaaacaaa aagagcataa agaatcatca 180
atactctggt atagatatag atctttccag tacgtttgtg tatgtgtgta cacgccatta 240
tctacaaaaa agttatgttg aacatggtag tttaagctgt ctttctggta aatgctctta 300
tacaatatga tttttagtga ctaatattcc ctaatgtgtt catgccagaa ttcacataac 360

cagtaccttg tcaaatagga ggtttctgat taaatagtag tagagacagn atcctgttac 420

<210> 400
<211> 415
<212> DNA
<213> Homo sapiens

<400> 400
aattcggcac gagactacaa aatgttaaca atgggtgaat gtaggtgaag agtatgtggc 60
agggtgtttt ttattctcgc aaattttgtg taggtttgaa gttaccacag aatagcaaat 120
ataagaatga ttcctgcaga cacacgagtg atttcaactg ttcacagggc tcaggcagga 180
agcagatctc ttgccctccc tctgatccag gtcacttagt ccagtccctg aaagcagtgg 240
atggacaacc atgccacccct ctttcttcca atacacctta ttttgtatcc tgccctttt 300
gtgtagcatt agatcatgag cattttcctc tgctataaat gtcccctcaa atatgttgtt 360
tcttgtgact ccctagtgtc tacccacgat ttcctcggct gctccacctt ggggg 415

<210> 401
<211> 407
<212> DNA
<213> Homo sapiens

<400> 401
ctctgagctg aggaaacaag gtgtcctcca tcccccagtg ccttcacatc ttgaggatat 60
gcttctgtac tttttaaaag cttatagttg gtatggaaaa catttttctt atttttaagt 120
gttattaatt atatctatgg aaaaactatt cctgaaatat atacagtctt atgtcccaat 180
cagagtcttt taacctatga tttaaaaatg tataagtaac agaaattaac atattttaat 240
gactttactt tttatttcta agaaaagtat ttgaaaaatg gaataatttt aaatcaatga 300
taattctagg gatcatgaac tcccagaaga ttttattatt taattgtaaa ggtagaggcc 360
agacgcagtg gctcacgcct gtaattccag cactttggga ggccgag 407

<210> 402
<211> 405
<212> DNA
<213> Homo sapiens

<400> 402
aattcggcac gaggtcatgg aaatagaatg caccaccatg agcatcatca cctacaagct 60
cctaacaaag aagatatctt gaaaatttca gaggatgagc gcatggagct cagtaagagc 120
tttcgagtat actgtattat ccttgtaaaa cccaaagatg tgagtctttg ggctgcagta 180
aaggagactt ggaccaaaca ctgtgacaaa gcagagttct tcagttctga aaatgttaaa 240
gtgtttgagt caattaatat ggacacaaat gacatgtggt taatgatgag aaaagcttac 300
aaatacgcct ttgataagta tagagaccaa tacaactggt tctttcttgc acgccccact 360
acgtttgcta tcattgaaaa cctaaagtat tttttggtaa aaaag 405

<210> 403
<211> 386
<212> DNA
<213> Homo sapiens

<400> 403
gatcatagct cactacagcc ttgaagtcct ggactcaagc aatcctcctg cctcagcctc 60
ccctgtctca aaagttaaaa aataaataaa tttttttaa aaaaagaatt aattacaagg 120
tgaagttaac aaggaaggtt atatgttatg aagaatattc tactatacga ttgtaagttt 180
agacttggtc cagtagcaat gtggaggtat tgaagttttt aagcaggaga ataaaatgat 240
cagattgagg atgatggctc tgatggtaaa gtataatcaa gtttagcttt cctaatgtcc 300
tttctttgat gcacttaaca atttgaccac ggaaattaaa cttactgcct ttaccctaag 360

aacccatgta gttcttcaag gtctcg 386

<210> 404
<211> 426
<212> DNA
<213> Homo sapiens

<400> 404
aattcggcac gagacaacct gtcccctgtc acagcagcag aacaagggca aaacagggat 60
gaagtaggaa gaataaacac ccagatttcc tcctaccctc ccatctcttg ctggtgcctc 120
cagtgcataa ggaagtccag atgatgcagt caatagaggt cagcctccca gatgtggagc 180
tagagaagag caaaaagtgg cctgggaata tacagaataa cgagcacacc atccttagac 240
agtcacatcc atccacacat ccattcacat ttcagttcat accagagatc attgctaatg 300
ttatatagaa cataataaac ataaatccca tttctcactc attctaaaca ttacatttca 360
ggtacacagt acatcccatc atcatacatt ctggccacaa cctacccttc ccacatcact 420
tctact 426

<210> 405
<211> 408
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(408)
<223> n = A,T,C or G

<400> 405
aattcggcac gagcatagca atacactgtt ttattttatt gttagttatt attgttaatc 60
tcttactgtg actgatttat aaattaaact ttacaatagg tacgtacgca taggactaaa 120
cagtctatat aggctttggt actatccaca gtttcaagca tccattggag gtcttggaac 180
atatctccca tggataaggt gggctactgt attggtttaa gttcctcaga tttcctggac 240
tacctgacat taggctctac aattctttca tacatgctac ttcaatcagc agcatgctta 300
gcacatagca tgtgtttaat aaaagttaaa tttaaaataa aaatcaagat ttccagttga 360
actgaagcta gggaaaccta cacatatttt gtgcgttagn tngtttgg 408

<210> 406
<211> 398
<212> DNA
<213> Homo sapiens

<400> 406
aattcggcac gagagcaacc ctagcaatag actgactcta ctacaaaaca atttggttat 60
ttctcttact atttctctat tatatctggt gagggaatgt tatcatgagc acaggtatta 120
gtcctatgct tttaatcggt ttagtggttt ctttgtgtct cattttattc atttgtaatt 180
tttttaaaga ctataaaact tccacagttt ctttagatca ttaagttata tgactctttt 240
tcatgggggt cagttaacaa tacataagaa aacatttgtt ctaggataat atatgaccta 300
acagcctttt gttagactta gagatatcaa tatgctttct atgtttcagg catatttata 360
ttcctggaaa ttaaacaata tattttagga ccccatac 398

<210> 407
<211> 396
<212> DNA
<213> Homo sapiens

<400> 407

actacttaga ggccacgatg aaatatttta gctagttttg ttaattaaat aaaaaatatt 60
ttaacttaat tcgatgggaa atatttcaaa gtttctctta cagctaatta agctaagtat 120
taatgtgaat gtgtaaagtg actgattttt aaagctatca ggaaattaca ctctgccaaa 180
tattatactg cagctagaat ctagatgatg gcaggatatg aaaaccaaaa aactgtctaa 240
aaattttatt aaaaatatga gtcagtctca atcggtttat caaggcatac attttgttgg 300
agtgccagaa aagaccataa tgtgtatgtg aacatttgtc tttgtgttaa attaattagc 360
tttagaataa aaatgtaaaa attatttgcc cacctg 396

<210> 408
<211> 406
<212> DNA
<213> Homo sapiens

<400> 408
aattcggcac gagatatagt ccagatgagg aaaataaggc tgaaggcaag ctaaacttgc 60
ctgaagccac attgctagga agtgacagaa ccttgtaaac aagatttaag atttgatata 120
ctttcttatt ttctaaaaat ttcaatgtgc atgtagttct cagatgcttt cctcgaagaa 180
aagggagtgt catctattta tctgaccttg caattatgac atttcttaga agtttttttt 240
tttaactgac cgtatcttat gaaatggtct tgcgatggtg ttgttgaaat gacttttttg 300
ctgcagtgtg ccttgccctg ataattcctt cttcctacta tgcttcagtg taattatttc 360
tcttactccc actgatactg ggggaaggag aggaaactcc ctgatg 406

<210> 409
<211> 448
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(448)
<223> n = A,T,C or G

<400> 409
attcggctct tnatctnctc ttgttctttn gcnggaattc ggcacgagag tgtgcttgac 60
tccagtggaa ctcacacagt aaatagcgtc cgattacaca caccattctc ataactttct 120
ctcctgcctt ctttagcttg gtacagctct gtttgcaaca agatcctgag aaaaggtaat 180
attgatctct tttaaatagc acaaaatgta catgttttac attttataga agctttgtaa 240
cattgcccctt ccaggagaat acaaatcttt tgatcaaaat attgctgctc taaanatntc 300
aatgcttana acaattagtg ggaacaagcc aatgagaaga atctggattc aaatcaaaaa 360
aagctgggtg cgggggctna cacctgnaat cccaaacttt tggaaggcca agccggtgga 420
tgnctgagtc aggagtcaaa ccccccttg 448

<210> 410
<211> 418
<212> DNA
<213> Homo sapiens

<400> 410
aattcggcac gaggagctgc ccccatgatt cagttacctc ccaccaggtc cctttcacaa 60
tgcatcggaa ttatgagagc tacaattgaa gatgagattt gggtggggac acaggcaaac 120
catatcagac cccaagatct cttttcagct ctataggctg atccctgtga cttgcatctt 180
gcagaagaaa acaatggctt ttcagtgcct tttttgtaaa taatatggct gcatagtcag 240
agaatatggg agacagtgtc tcctttattt tgaagacata attgtggttt ggtggaaaga 300
gctctggact aagagacaga aggcctaggt tttactttta gcttcaatac catgtggcca 360
tgtgaccgga ggaaggttga ctcttctgaa cttcagttcc tctacctgag aaacaaga 418

<210> 411
<211> 416
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(416)
<223> n = A,T,C or G

<400> 411
aattcggcac gagacccta tcaagataca gcacattctc gtcactgcca gaaagttgcc 60
ctttgcccct tcctggtcag tacctgctcc cagaagcagt cactggcttg ccttgtcatt 120
gtgggtcagc cttgcctctt ctagaatttc acagaggggg agtcctgccc cgtggagtcc 180
gttgggttga gcatcttcgg ctcagcatga tccttttgag atgcagggat gttggtgtgt 240
gtgtatcggg agtgtcttcc tttaagaaat tctttcccgt gagtatttct tcaagcctgg 300
atttctcatg aggctccaaa ctgcagaaga tgaaaaggga gggctgnggt tcctgtgtct 360
canctcctgg tgngcagtaa gngctctgta gatgcttggt gaatgaatgg atgggg 416

<210> 412
<211> 461
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(461)
<223> n = A,T,C or G

<400> 412
tttggcncct tnaatacaag ctctttgtgn nnnatncaag aanccatctg agttcnaatt 60
cggcgacgag cagacaccga gcttcagcaa gctctctcca acggatgaag ccccacccgc 120
ccttcaggat gccagccttg gcaacattgt gagaccctga ttctacaaaa agtaaatgag 180
tgtagtggtg cacgcctgta ttcccagcta cttgggaggc tgagatggga agatcacttg 240
agcctgggag gttgaggctg cattgagctg agatcaagcc acggcactcc agcctgggag 300
acagagcgaa accccatctc aaaaaaaaca aagaaagtgg atgcgcgctg ctcctgccat 360
tggatcatcg cagcattttt cttttctctg atatgcacct ttttctcatc gggggggctc 420
acgttttcat agttccctct cactactagg ntgggagctg c 461

<210> 413
<211> 415
<212> DNA
<213> Homo sapiens

<400> 413
ctgctagccc catgtgacca tttgaagttg aatttaaatc tacattaatt aaacttaaat 60
aaaacatttg taaaaattag tctctcagcc actagtcaca ttttgagtgc tcagtagcca 120
tcccttgcaa gtattaggac agtatggaac attcccacca ctgcagaaag ttctgtggtg 180
cagtgtccat ctagatgatt ctacaaatgg aagatttagg ggaagaggag aagtaagtag 240
tgaggtgtac ctaattgctt ctataagttt tagtacaaag aacccttcct ttaaaatatt 300
gatatttggt gaaacattca gatatcacgt tttaaagtga tttcatggac actaatcaac 360
agagcaacaa catagatata tcattgctac aaggatggat caatacttgt ctacc 415

<210> 414
<211> 427
<212> DNA

<213> Homo sapiens

<400> 414
aactctggct cttctcgtga attacatttc actggagtca ggtgttttct gtaaacatcg 60
ttaaaccacg agaccaactg cattgaacat tttttgcact acattgtttt atttcttgct 120
cgtcttttcc ttgcagagct ggggctgggg tgaggtgtgt ggtgtaccta gcactcaaaa 180
tgtaaggatt ctcagagtca tacaggtgca cggtcagcac ctgagagtga gccacccttt 240
aacattttgc cttctaggtg cttcacttgc cttgcccaag cactacccct agattaaata 300
atatgtttct attagttttt taaaattata atattaacaa taactagcac ttattgagca 360
ctcccttatg tgccagcaaa tgtgacttac atgtatctgc ttatttttcc ttacatgaaa 420
ccctctg 427

<210> 415
<211> 414
<212> DNA
<213> Homo sapiens

<400> 415
aattcggcac gaggtttcac cgtgttagcc aggatggtct cgatctcttg acctcgtgat 60
ccgcccgcct cagcctccca aatcgctggg attacaggcg tgagccaccg cgcccggcct 120
gtatctgcct ttttgaccac accattattc gtgggattta acaggagtta atgagttaat 180
aatgttcctt ttccaaactc agtggttttg attttacaaa ttatttgact tttcctgatt 240
tcaggatctt gacaatttgc ctttacttat tcaaatgtta ttataccaaa tatttattta 300
aaaagttttt ttttctttga ttcctcaagt tgtagagaga aatagggata gggaagcaga 360
atcaagtagt taaaaagata gcctcatttg accctgattt cccaattggg aata 414

<210> 416
<211> 414
<212> DNA
<213> Homo sapiens

<400> 416
caattcggca cgagatgagc ctttactgta agctacctta aatctttttt ggaaagaggt 60
aggatataaa ttaaacatac acctccccaa gatctcagag tgttgatgga ctgattacag 120
agacggggag caggtatttc ctcattcatc actggaggca gaaaaatcac ctccaaatat 180
ttgttctctg atagcagttg ggaaaagtcc tcccttaaatg agaggcccac gaagggatga 240
atagggattt tggctgacct ccaaagtgaa gctaagataa tgcctgcctt cccagtatta 300
cttgaggcta attactcaga tataattact tgcactctgt gtttttgctt ccaatagggt 360
tgggccttgc ttttgtttat cttgtatccc ccattagact ttgagctctt taaa 414

<210> 417
<211> 408
<212> DNA
<213> Homo sapiens

<400> 417
gcaccacgcc ccactacatt cgctgcatca agcccaacag ccagggccag gcgcagacct 60
ttctccaaga ggaggtcctg agccagctgg aggcctgtgg cctcgtggag accatccata 120
tcagtgctgc tggcttcccc atccgggtct ctcaccgaaa ctttgtagaa cgatacaagt 180
tactaagaag gcttcatcct tgcacatcct ctggccccga cagcccatat cctgccaaaa 240
ggctccctga atggtgtcca cacagcgagg aagccacgct tgaacctctc atccaggaca 300
ttctccacac tctgccggtc ctaactcagg cagcagccat aactggtgac tcggctgagc 360
catgccagcc cccatgcact gtggcaggac caaggtgttc atgactga 408

<210> 418
<211> 379

<212> DNA
<213> Homo sapiens

<400> 418
gcaacatgta taaaaataga agtgcaggac cagaagtgag caaagggggt tatatattgg 60
gcaaagtgac aaaatatggt agagatatga catggcggat ttccctgaca ataagattac 120
caagaaaata gattccagag acaagcaagc atgtgtatat atgtgggaat ttaatatatg 180
atcaaagaag tatttctgat caaatgtgaa aagatgtatt agtcaataaa tacctaagga 240
tgactggtta tccaattggg aaaaaaataa atccttacct catatcaaac tcaaaagtaa 300
attccaggga gattaaagat ctgaagataa aagaccattg aagtgttaga cagaaatgaa 360
ggaaactatt attataatt 379

<210> 419
<211> 406
<212> DNA
<213> Homo sapiens

<400> 419
aattcggcac gaggtcagat tccagatata tgatgaaagt agacctgcag gacttgttga 60
cagattgggt gtgggaggtg taagagagga gtcctggctt gagtaattta gaaggatgac 120
atggctattt cctgatgtgg ggaagactgt gggagaaaca cgctggggag gagtggagtc 180
aggagttgag ttttagaggt attaagtttg agattcctga catatccctg taggcagctg 240
aatatatgag tctggaaccc aaggaaggac ttagaaggga gacatttttt gtttggtgat 300
ttacagttag accttgtcct cacattcaag ttggaccttg tcctcacatc cctgcttcat 360
acgtagaaag ttgttgggtc tcttctcttt cccaagaatg agcaat 406

<210> 420
<211> 384
<212> DNA
<213> Homo sapiens

<400> 420
aattcggcac gagggaggtt tctttggaga gcttctatcc tactggaaac ccaggttggg 60
ccccatgtgg attgatcggc agtgggaatc agctagggct gctgtaactg agttcgcaga 120
cccagtggca tagacagcaa agaggtactg ccacgtggct ttggagacca gaagtctgag 180
aggaaggtgc tggcagggct ggttccttct gaggctgcaa tggaaaacct gtcctggcct 240
ctctcctggc atctgctggt tatctttggt gttccctgta gacagctgcc ccctcccctgt 300
atcttcatgt cgtcttcctt ctctgtgtcc ttctcttcac gtagtctttt taggacgctg 360
gtcgtgttgc cttagggccc ccat 384

<210> 421
<211> 409
<212> DNA
<213> Homo sapiens

<400> 421
aattcggcac gagacaatac atgagtaatc tgaaagtatt taggctgttg aaattttctg 60
attgctttag atttgcatct catgaaaaac agcagtcttc cctacctacc ttttagtatc 120
ctaccctaga ggctgttact ttcagctctt ttagctattt cttctagcat tttcctccat 180
gtttacaaat aatattctta tattgcactc tcattttctt ttccatctat ttcagacata 240
ctgactttct cccatgcagg gtcacagtgt ggctttctta caccatttgc tgcaacacag 300
acacttctcc tgctccttcc catgtggttc gtgtgtgtgt gtgtgtaagt gtatgtaaaa 360
tccaccctta gagggggaat tgctgctggg catggtggct catgcctgg 409

<210> 422
<211> 407

<212> DNA
<213> Homo sapiens

<400> 422
cgcaaagaaa tattagaata ttaaaaagac aagtctgtct cagtatttca ttttagccct 60
atcttttatt aatgcatggt gtgcaataac aaatcacaat aaccagtgta tattgagtga 120
tataatatat tatgctgaag ttctttcatt ccatcatctc atttattctc accttaatgt 180
tgtctttatt ttaaagctgc attttaaagc aaaatctgcc aaagttcacc catctagtaa 240
atgacagagc tgggactgga aaccaggcta gaatatcctt gtgtatgaat cagtaatcat 300
ggtaaacaag agattggtca gggaaaaatt ttggttggaa taggaggaga gagagtccag 360
tatgtaaaat gtgattttgc tattttactt gaaaattgta gatttgg 407

<210> 423
<211> 405
<212> DNA
<213> Homo sapiens

<400> 423
aattcggcac gagacatgta ccctggaact ataaaaataa aaataaaaca aacaaacaaa 60
aaacatgtgt gcaaacatgt gttaaagact tgtacacaaa catgcatagc agctttattt 120
ctgatagctc taaactacaa acaatccaga attccaacag gtacatggtt aaattttgtt 180
atactcatac aatgcaatag tactcataat gaaaaggaaa tatcaatata tttaatgact 240
ctcaaaagaa tgaaaatcca agaaatgtca agcatgccat aagacaactg cactcaaagg 300
aaactcaaag tgagtgaaag gaaccagaca atagtaattt gtccacacta tatggctcaa 360
tttcaataaa actgtaggaa atgcaattga atctatagca acaga 405

<210> 424
<211> 168
<212> DNA
<213> Homo sapiens

<400> 424
aattcggcac gagggtgtga gccaccatgc ttgaccataa agccttacta tttcttttgg 60
agacacagtc ttgctctgtc caagctgaga tgggaggatc acttgaccta ggagttcaag 120
tcaagcctgg gcaacatggc aggaccctat ctttaaaaaa aaaaaaaa 168

<210> 425
<211> 388
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(388)
<223> n = A,T,C or G

<400> 425
aattctgcac gagagatcct tcatcatcct ggaagagcct tttgccatgc aagacaacat 60
agccacaggt ggggattagg accaggacat ctttggggtg ctgttattct gcctaccaca 120
ccttcctgcc actgactccc acaggagagg ctacaaaatg atctggcgca cagggatgtt 180
ttgtttagct tgcggactct aacacttaaa aaaaacccca gatcagaaga tctggccatg 240
ctggggctca cattctcacc tagcaacaac tggctggagc tgggcaccag ctctgccttt 300
anaaggggtg tccacttcac caggtcacca cagcccacac tacgccctat cacttcccac 360
aatgaggctg agtgtttgtt tctactga 388

<210> 426

<211> 420
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(420)
<223> n = A,T,C or G

<400> 426
aattcggcac gagggttaag ggagagaaga ggatgaatag gtaatgcaca gaggattttt 60
gaggcagtga attaaaagaa aaaaaactcg atccctgtcc ttacggatct ctggtctagt 120
cggagtcagc aggcacacag aggcctgctg agatggagaa tcgatgctca gattcttcct 180
ctgtatccag aagaagccag aggagggtac tgcctggccc tgggaggctt cactagaggt 240
tttcgagagg aagatgcacc gtctaaggtg tgacgggaaa gggccagaaa gagaatgagg 300
gaagaacatt ccaagccaca gaaatggcac atggaagaaa gcagagatga gaggagaaac 360
catctgtgac ttaagtggct cancagactg gagagagtcg ggcaattgag ttgaacacag 420

<210> 427
<211> 400
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(400)
<223> n = A,T,C or G

<400> 427
aattcggcac gagtgtttcc cctgatagcc tctgagtttc ttccggataa cactgcatca 60
acaatgctac tgagcaccaa ctgagggcag gatgcagaat gctggatggt gtaggaaata 120
taacagttaa gaccagggct gggattatag gcgtaagcca ctgcacctgg cccaaaatgt 180
tattttaaat tcttcacaat tacatttttt catttaaggg agggcaattt aaagagcaaa 240
tcatttgaaa gcttggatgc tncanangcg tattctgntc attttatggn ccattatgag 300
aaccaganag cttatcagcc tagtttgtaa gcangtttat gagnctgggg nttttaagct 360
cttcaaaaaa tgtttagngg atggtaaatc ccttaagaaa 400

<210> 428
<211> 420
<212> DNA
<213> Homo sapiens

<400> 428
aattcggcac gaggtgcctc tagggggtgc ataaatgcat atatatgtgc acatacacac 60
gtgcatgcat actcatgcgt acatatacac agccccccac cttgcctttt acagagccat 120
gaagcagcag atgcaaccga atactgtgca gcatgagcca cagacgttta cgggaagaac 180
cggcaggagg cgccgggaaa ctaaagggct ccagctctct gagtggtggc tttgccattg 240
tggctgtgcg agctcagcct cctggaaacc cgccctgagc ttggttaaca agcattcact 300
ccaggtttaa cccagctcca ggttatcgca ggcaggactc ccgagaacag gttcatgttt 360
gctttttggg aagtgctgcg ctaaaatgga aaacaccctg ggccgagtgg gacctcccag 420

<210> 429
<211> 413
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(413)
<223> n = A,T,C or G

<400> 429
tatacgctgc gctttcgggt cccgcgccca tcagatggtc tccaaggcaa agaagcgcgt 60
gctgctgccc acccgcccag cgcccccccac ggtggagcaa atcctggagg atgtgcgggg 120
tgctgccggc agaggatcca gtgttcacca tcctggcccc ggaaggtagg gggagcccgg 180
tcccggtgaa aagcggacct gagaccccgg cagcaagggg acgggagaga agcacacccc 240
taactcctga ccccacgccc tggtaacccc cgcaacatgg gcacggttcg tatcctctcc 300
gagtctccct ctactcctcc gtagagtgag accgattttc agagggttct tctgacatgt 360
gtggaagccg ggcgctgtgg ttcangcctg taagcccanc acttttcnga agg 413

<210> 430
<211> 434
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(434)
<223> n = A,T,C or G

<400> 430
gccgcgatca caccactgca tgccagcctg ggcgacagag tgagaccctg tctcagaaaa 60
gaaaaaaaaa gtaaaaattg catgtaagtt gacccgcact attcaaattt gtggtgttca 120
aggttcaact gtaatttcct agcagcattt tgtgtgtttg agaatctctt gacactcttc 180
aagtaaatcc ctaaattaca actttgacat caaaaaagct agacattcct acatttttgc 240
actacaatac ataaaaactc ccatgctgat cggttgtggg atcgtgcctg tgaataacca 300
ctgcactcca gcctgggcaa catagtaagt aagaccttgt ctcttaaaaa aaatacattc 360
tgaagaaagt tctacttatg aatacatttt atttataaca aactggngaa aattttagac 420
caaaccatgt cttt 434

<210> 431
<211> 413
<212> DNA
<213> Homo sapiens

<400> 431
aattcggcac gagagcacag gtacatcagc tgctaacgcc tgcaagtgcc atctcaaaca 60
aagaggcaag cagtggctct gggccaaaat ctatgcaaga tggctggtgt ggtgatgata 120
tgccattgcc tggaaatcgc cccactggct gggaagagga agaggatgtg gagattggaa 180
tgtggaatag taattcatct caagagctta actcatcttt aaattggcca ccatatacaa 240
agaaaatgtc atcgaagggt ctgagtggca aaaaaaagga gaagggaagg gtgtgtagcc 300
tttttactct ttctcctttg tttctactag taaaaatctt tagaaagcaa ctgcaaacat 360
ttatttaacc tctgctgtgt gccaggtact gtgcttggtg ctggggattc aaa 413

<210> 432
<211> 423
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(423)

<223> n = A,T,C or G

<400> 432
aattcggcac gaggagcatt gtaatgaagt gtggttctgt aaattctcta atgatggcac 60
taaactagca acaggatcaa aagatacaac agttatcata tggcaagttg atccggtatg 120
taccccaata tgagtgttta tattacaaaa ggggataatt ttgaatctaa ttcattgatt 180
acatattttt aagtatatat gtatcaatag tattcttttc taagagcatt ttttatcatt 240
tttacatctt catgtgttgt atagataata tatgtaagtt aatattatca acattgttga 300
gtgtttatgt gctaacaata atgttaaatc tgtgtatgca ttatctaatt taatattctg 360
aaaaactctg tgaggngcta acatctcctg cagtcagatg aagaaactga ggnagaaatt 420
aaa 423

<210> 433
<211> 398
<212> DNA
<213> Homo sapiens

<400> 433
agtttgtata aggcttagca cttccttgat ttcatgcgtc cactagggat ctgggaaagt 60
attcctcttg cataagggga gactactgta tgctgcttcc caaattctgc tgtatgggct 120
tcccaaaatt caagctgtgt ctcaagtcag tgaaaatccc aggctctgat tagtctcttg 180
ctccttgggt tgcagtctgg gaattccctt taagcagtaa ccctggccat ggtaggactc 240
acctcccatt gtagcctccc aggtggctgt gattacaggc gtgagccact gcactcagca 300
ggaaagcatt gcattttgta caatgcttta ctagtaagaa gtaatcagta agtgataagg 360
tattgtaacc tgtggtctgg actcacctga cagggtga 398

<210> 434
<211> 425
<212> DNA
<213> Homo sapiens

<400> 434
tgcccagcta attaaaaaaa aaattttttt gtagcagttc ggtctcatta gtattgccca 60
ggctggcctc tcttagcttc aagctatcct cccgcctcgg cctcccaaag tgctggaatt 120
acaggcataa gccacaagcc actgggccca gcctctttta cctgtttcaa aattgagttt 180
tattgagttg taagagttct ttattcattt taaacacaag tcctttgttg gatatatctt 240
ttacatctat ttttcccagt ctgtggcttg ccttttcatt ttgaagagca aaagtttaaa 300
attttgtgaa tttattaaag ctccgtttgt tgctttttttc tgttctagtt tatacttttg 360
tatcatattt taggaaattt tgcactgggt atttgatggc tcctgaggag gttcaacttt 420
cagag 425

<210> 435
<211> 386
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(386)
<223> n = A,T,C or G

<400> 435
aattcggcac gagagttcct gccgctaaga tttccaggtt tattgtttct agctggtaat 60
ccccaggggg ccccaaatcc tgaaatgctt tggcccctgg gattgcacaa ccccccaaat 120
ggaaaggcag ccaggaagac atgtctgggc aggctaagaa ccctctatcc ggagggagag 180
ggcaaatggg ggcggacacc aatctcacca cttttgtctc cttagtcacc atccagggga 240

gactccacct ctcatcaccc caggtaagat ggggcaacat ggggctcagg ggaacacgga 300
antggtgtgt gtgtgtgtgt gtgtatgtgt gtttgcacac tggaaagaaa agaactnaat 360
tcaccctcca aacggcccca tcacct 386

<210> 436
<211> 411
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(411)
<223> n = A,T,C or G

<400> 436
ataaattagc tgacgtggtg ggcacacctg taatcctagc tactcaggaa gttgaggcgg 60
gggcatcact tcaacccagg agttcactgc tttagtgagc tatgaccata ccactgtact 120
ccagcctggg tgacagagca agacctcatc tctctctctc tttttttttt ttnnaaacnn 180
agtttccccn tgtcccccag gttaaagngc agggacccan tntaagntna nngnaantcn 240
ngcntaancc tctttaaaan nnggaatnac nggggnggnc ccccnccccg ggcnaatttt 300
ttanttttna taangngggn anggngggct aaaaggccng acctngnant tngccngcct 360
ngnccnccca angggccggg nttaaaggca ggagccccgc ccctaccaaa a 411

<210> 437
<211> 471
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(471)
<223> n = A,T,C or G

<400> 437
actccttnna caagccactt gctctctntg cnggatccca tcgnntcnaa ttcggcacga 60
ggtgacatgc tgtattggct actccataaa gtaggagtat agatggaatg gagaaagaag 120
caacctctga gattccagtg gtgtgtgggg gcaagatctg atggaaactg acaaagagaa 180
cgaagactac acaaagagaa aggaaagaga agaaacccta aatgggcaaa ggaaagcaca 240
tcctgtttgc ggagctttga aatattggaa ccatttctaa ttgctcctgt ttttctgggt 300
aacaccagtt ttctgtagtt gccactaaag cagtagactc ttgagtctca cttgtctctg 360
agagagacag aagttagaaa gttttgactt ggcgattccg aaagtatgcc tttgttggca 420
cttaaatgtc cagtgagact tcttggcacc ttagagccct ctgagatctg g 471

<210> 438
<211> 418
<212> DNA
<213> Homo sapiens

<400> 438
aattcggcac gaggctcttt ctacccagat tacctcattt aattatcata gcaaccatat 60
gaggtgcagg tcattactat tttcctcatt ctataattga ggtaactgag gcacagagag 120
atttaaaaac ttgttccaaa tcacacagct agaaagttag gtaaaccagg atagtttgat 180
tctagagctt aacttcctag ctaagacatg tgaagtcaag tttctatgca tcttttgagg 240
ggtgttgtat ttattttcag gtctcctact tgatctcact gtatgcatta cagaaatttc 300
ttgtttattt atttgtttat tttgagatag ggtctcactc tgttgcccag gctggagtgc 360
agaggctcga tctcttagct cattgcaact tccaccttct gggctgaaat gatcctcc 418

<210> 439
<211> 399
<212> DNA
<213> Homo sapiens

<400> 439
ccatggggaa ttggttccag gatcctccac tgatggtaaa atctgaggat gctcaagtcc 60
cttgtataaa atggcatagt atgtatttgc atattaccta ctcacatctt cctgtatact 120
ttaaattatc tttagatcac ttatacctaa cacaatgtaa atactatgta aatagttgtt 180
atactgtatt tttcaatttg cattattttt attgtatttt atttttattg tttttttttt 240
gagtattttc tatttgagat tggtggaatc tgcacatatg agggctggct ataaagggca 300
ccacaaggaa gaagccaaac agacccagaa tgtgtgaaat tctacagagc aaattacctg 360
atttcttcaa ctaacaggta gcatgaaaat caaggggaa 399

<210> 440
<211> 409
<212> DNA
<213> Homo sapiens

<400> 440
aattcggcac gagacgacat ctttaagaac tgtaacactc accgcagagt ccacggcttc 60
attcttgaag tcagtgagac caagaaccca ctggaaggaa ccaattgcgg acacaaaagc 120
agaagtaagc actccatttc aaccacatgt ggctttctct tcctactgca atttaagcta 180
aaatatgttg aagctgcttt acctcatttt ttatattcag cgaactttgt cggcatagtt 240
catacctag cttcctgaag gcctagttat tgcctatctt tgctttgatg ttgccatttt 300
caaatcttct catcacacca atttcaattt tctgcattac cacttttcat ttctttgctg 360
cctttcagat ttggtggaaa cttttatatg aatttatcac tggggacga 409

<210> 441
<211> 394
<212> DNA
<213> Homo sapiens

<400> 441
ttttggtgct aggctttggg acgagattct ggggcgtaga tcttgggatc ctccttctat 60
agcctgtttt tcaatgggga tgtttgtctt ttccttaatg atctataaaa ggtgttcata 120
tattagtaca aacaatttca cccacacttt attacgcttt tggggagaaa gggcaagaaa 180
gtgttgtcag ccccatttat tgactaatcc attctttccc cacttatttg agatgccagc 240
tttatcatat actaaagtat tttatatgta tggatatgtt tggggatttt tgaatttagt 300
tctgtttcag gaatcttttg gttccagttc tagccactgc actccagcct aggtgacaga 360
gtgagacccc atctcaaaaa gaagagagag agaa 394

<210> 442
<211> 416
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(416)
<223> n = A,T,C or G

<400> 442
ccctcatgtg acagaacata ataagtagtg tatgtaggtc attgggctgc agtgttccat 60
gcagtcattc agagacccag gctgacaggg gctctgccgt ctttaacatg tgactttcta 120
ggtcagtcat ctggtcattg cttttccaca cagcagataa gacaaaggag tggaaataga 180

ggggtagaga ttttctctta aacgtgtgag gctggagtgg tatgcttcat tggcaagaac 240
ctggtcctag cctgcctagc tgaaaggagg ggagtcaggg agatgcactt tgcagccaaa 300
attctgttgc caagaagggg aaagnagatt tgggtggatt ttgatctgng gttgctgctg 360
tgtactctat aattcaccat gtctctggag ggttaactat gttgtaccaa ttgatc 416

<210> 443
<211> 410
<212> DNA
<213> Homo sapiens

<400> 443
gtaaaatttg cctatataat ttcttgtata cacctatttt cggtatcaag gctatactag 60
caatgttttc tttttttgct ctgtggaaac aaattgcacc tgttgagggt ttggtgaact 120
tgacaccaaa accatcttat ctttctatgt tttcatgggg aaatttgta ctagtttttt 180
aataattata agtcttacat gttctctaat tcttcttgaa tctgtttaat ttttctccct 240
tgggaattgt taagtgtaca tgtattgtga taactgctat aattttgctt ttattgattt 300
tttttgcttt atatctgcta caatttggtt cctccaaatc ccatgttgaa atctgatccc 360
cagtgttgct gggggatcta ataacaggtg tttgggtcat gggaacaggc 410

<210> 444
<211> 419
<212> DNA
<213> Homo sapiens

<400> 444
aattcggcac gagagaagcc agatgcaagg gaataaatac tgtttgatcc tgtttatgtg 60
aaattttata atgtgaaagg caaaactaac ctatgctgat ggagtaagtg gttgcctaca 120
ggggtgaggc ttgattggaa aggtgctcta gggaaatttc caggatgata cccccctttt 180
tttttcccaa gacagggtct cactctgtca cccaggctgg agtgtagtgg tacaatcctg 240
gctcactaca gcctcgaccc aggttcaagc aatcctctca tctcaacctc ctgggtacct 300
gggactacag gtacaagccc cacacctggc taatcttttt atgaaaattt ttttgtagag 360
atgaaatctc actatattgc cagctggcac aaactcctgg gctcaagtga tcctcctgc 419

<210> 445
<211> 411
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(411)
<223> n = A,T,C or G

<400> 445
aattcggcac gaggcggaaa ctgcatcctg gcagcgtctg ggactcctct ctgccaggat 60
gacccatgac gctatgacaa gagtactttt cctggnaggg ggccttncat cntgtnggct 120
ccccnttaat gncngnntga tctttaantg aacatggtct tgccatcacn taantgnctn 180
cacntgccct tcaggcagat gggatcatta aagnaccctn aacattgcct gngcttggta 240
acctggancc tgaacgggaa cgcgnaatca ccattgcnat ttcttgtgaa atttcntacc 300
ancaggacta tgtgctatna tttntnccca ngaccagaaa ctttntnaaa ncatgataca 360
gggacatctt angctgctgg cctgcctaan gttcttgctg gngttngtga a 411

<210> 446
<211> 418
<212> DNA
<213> Homo sapiens

<400> 446
cggcgggaga gtaaagggtg ttactatcgt taaaccaata gtttacggta atgttgctcg 60
gtattttgga aagaaaagag aagaagatgg gcacactcat cagtggacag tatatgtgaa 120
accatataga aatgaggata tgtcagcata tgtgaagaaa atccagttta aattacatga 180
aagctatggc aatcctttaa gagttgttac taaacctcca tatgaaatta ctgaaacagg 240
atggggtgaa ttcgaaataa tcatcaaaat atttttcatt gaccctaatg aaagacctgt 300
aaccctgtat catttgctaa agctgtttca atcagacacc aatgcaatgc tggggaaaaa 360
gacagtggtt tcagagttct atgatgaaat gatatttcaa gacccacagc aatgatgc 418

<210> 447
<211> 419
<212> DNA
<213> Homo sapiens

<400> 447
aattcggcac gagcaagagc aagcccatga tgatgccatt tggtcagttg cttgggggac 60
aaacaagaag gaaaactctg agacagtggt cacaggctcc ctagatgacc tggtgaaggt 120
ctggaaatgg cgtgatgaga ggctggacct acagtggagt ctggagggac atcagctggg 180
agtggtgtct gtggacatca gccacaccct gcccattgct gcatccagct ctcttgatgc 240
tcatattcgt ctttgggact tggaaaatgg caaacagata aagtccatag atgcaggacc 300
tgtggatgcc tggactttgg ccttttctcc tgattcccag tatctggcca caggaactca 360
tgtcgggaaa gtgaacattt ttggtgtgga aagtgggaaa aaggaatatt cttttggac 419

<210> 448
<211> 391
<212> DNA
<213> Homo sapiens

<400> 448
aattcggcac gaggtggaat cagctgtgaa tgcagaaaga ggaggtgctg atcggattga 60
attatgttct ggtttatcag aggggggaac tacacccagc atgggtgtcc ttcaagtagt 120
gaagcagagt gttcagatcc cagtttttgt gatgattcgg ccacggggag gtgatttttt 180
gtattcagat cgtgaaattg aggtgatgaa ggctgacatt cgtcttgcca agctttatgg 240
tgctgatggt ttggtttttg gggcattgac tgaagatgga cacattgaca aagagctgtg 300
tatgtccctt atggctattt gccgccctct gccagtcact ttccaccgag cctttgacat 360
ggttcatgat ccaatggcag ctctggagac c 391

<210> 449
<211> 420
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(420)
<223> n = A,T,C or G

<400> 449
aattcggcac gagcctagtc ttaaactttt ttttttttta actttttaan cggangtnaa 60
aancnnnanc nnagacntan tangcnnggg cnnncncggg gtnaanaaaa nngggtttac 120
cntggccacc ttcncngttn gttnnnntgg anggttttca ggagcanaan caccctngga 180
gccntcnttt cntgtgangg cagggcctgt ttttaaanac ctcctgaagg atctggntga 240
ggcnntttta aagtnnactt ttttaaaaaa aantnaaaga agggggacnn tcaaatnctn 300
gatnaaaaac tngttnccgg ccggncgctg gnctcanncn nntaatccca gnntttttgga 360
aggcccaggc aggngtatcg cntnnggnca gnattctaan acnancnngg ccccaatggg 420

<210> 450
<211> 411
<212> DNA
<213> Homo sapiens

<400> 450
aattcggcac gaggccgcct cctgccaagg aaacagtaat ccatgtaaaa gctcattttg 60
actatgaccc ctcagatgac ccttatgttc catgtcgaga gttaggtctg tcttttcaaa 120
aaggtgatat acttcatgtg atcagtcaag aagatccaaa ctggtggcag gcctacaggg 180
aaggggacga agataatcaa cctctagccg ggcttgttcc agggaaaagc tttcagcagc 240
aaagggaagc catgaaacaa accatagaag aagataagga gccagaaaaa tcaggaaaac 300
tgtggtgtgc aaagaagaat aaaaagaaga ggaaaaaggt tttatataat gccaataaaa 360
atgatgatta tgacaacgag atcttaacct atgaggaaat gtcactttat c 411

<210> 451
<211> 403
<212> DNA
<213> Homo sapiens

<400> 451
gagagacttc ttcctgcatc cttacatggt ggaagacaaa agagtggcag agaatgaata 60
tactcccagt ccattcgaga gggaagagcc ctcacctcat cacttccctg aggcctcacc 120
ttctaatact atcaccttgg tgataagatt tcaacatagg aattagaggg gaatacatac 180
atccagacta ttgcagatgg gattatgtaa tactttgttc ctgtttggct tatttcttag 240
cacaatatct ttctggtatg tgcatgtttc tgcaaatggc aagattttct tcctttttaa 300
ggctgagtaa taattcattg catgtataga ccacatttc tttatgcatt cattattagt 360
gagagttctt attacaaatg ggcgaagtgg tttttaatat tga 403

<210> 452
<211> 408
<212> DNA
<213> Homo sapiens

<400> 452
tttagtaata agactttcag tatttttaat gttgacattt ccagatgttt catttagtat 60
ccaggggtct gtctggagac ttctagagag ggacagctca gaagtgagac ccttgagctc 120
tggtgctgta agcttgtgca attaagttga acagagcctg ggaatttctt tcctctgcac 180
agtcccttga tatttggaat ccaggttctg cccccaaccc ctacccaccc agtggtctgt 240
taagatgtct cagatggggc tgggcttggt ggctcatgcc tgtactctca acactttggg 300
aagcaaaggc aggcagatca caaggtcagg agttcagcct aaccaacatg gtgaaaccgt 360
gtctctacta aaaatacaaa aattagccag gcgtggtggt gcacacct 408

<210> 453
<211> 427
<212> DNA
<213> Homo sapiens

<400> 453
gaaaaacatc acagactttg aattctatag ccagagaaaa tatccttcaa aatgaaggt 60
aatgtgaaga tttccagtca tacagaaaac ttgaaagaac cccgcccccct tagacctacc 120
caacaagaaa tgtgaaggga agttcttcgg gtggaaagac aggccaggtg aagataagaa 180
tccacataaa agaatgaaga tccggaaatg gggatctaag tgaccctggc acaaactaac 240
aatatctttt aagatgaaca aaaaagacta ctcatctgag actcaggcca tggacactca 300
agtgagtgac ctataacact tcacagaaca tacaatcaga catcaggaac tggtcatgta 360
ggcttttttta tagttctaaa ctaaatacta catagaactt tgtgactgcc tgttattagc 420
tttagaa 427

<210> 454
<211> 417
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(417)
<223> n = A,T,C or G

<400> 454
aattcggcac gagtgacaac ttattccctg ctattatcaa ctaaagatca ccctttctac 60
tgctgtctct ggagcaggag ctggcaaact atggcctgct gtctgttttt gtacagtttt 120
actgaaacac agccatgccc atttgcgtaa ttgccccata tggttgcttt catgccctca 180
cagcaaaggc gagtagttgt gatggatcaa atggcccaca aagcctgaaa tatttactct 240
ttgacccttt acagaaaaaa accttgttga cccctgcttt agagaatgag aagccatgca 300
gggatcagtg atgccagagg aagggaagga actgcttnca gctattgnga caataataat 360
aataataata ttgggctttg actagaacgn gnaacatttn caggggtct cacttgt 417

<210> 455
<211> 393
<212> DNA
<213> Homo sapiens

<400> 455
ggccggcaga catgcctgga gtgcagcttc gagatcccag acttccctaa tcatttccct 60
acttacgtac actgctctct gtgtcgctat agcacctgct gttctcgagc ttatgccaac 120
cacatgatca acaatcatgt tccacggaag agccccaagt atttggcttt gtttaaaaat 180
tctgtgagtg gaatcaagct ggcctgcact tcatgtacct ttgttacctc tgtgggcgat 240
gctatggcca agcatttggt attcaacccc tctcacagat ccagcagcat cctgccacgg 300
ggactcactt ggatagctca ctcaaggcat ggccagactc gtgaccgagt gcatgaccgg 360
aacgtgaaga atatgtaccc tcctccttcc ttc 393

<210> 456
<211> 392
<212> DNA
<213> Homo sapiens

<400> 456
ggtacttcca agtacatata aaacaattag ccaatctgat gggtgagaga gactgcaata 60
caataataga ggactttgtc actccactct tagtaatgga cagattatcc aggcagcaaa 120
tcaacaaaga gacatcagaa ttaaactaca cagtagatac ggaaatcctt gaaaaaaata 180
ctagcaagct gaattcaaca acatattaaa aagatcagcc accacgatca agtagattac 240
tcctgaggag gcaaggatgg ttcgatatac acaaataaag aaatgtgata catcacatta 300
acataaccaa gaacaaaagc catatggttg gccaggtgca gtggctcatg cctgtaatcc 360
caacactttg ggaggccgag gcgggtggat ca 392

<210> 457
<211> 378
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(378)
<223> n = A,T,C or G

<400> 457
gagactagtc tggccaacat ggtgaaaccc catcgctact aaaaatataa aaaattagct 60
gggcatggtg gcgcacgcct gtagttccag ctactcagga ggctgaggca ggagaatcgc 120
ttgaacccgg gaggtggagg ttgcagtgag ctgagatcgc accattgcac tccagcctgg 180
gcaacaagag cgaaactctg tctcaaaaaa aaaaaaanng gggggggnnt nanttgnggn 240
nagggttnga aancacccng nccaannngg gnaacccntn tntttantaa aantntaaan 300
ttacccaggc ttggtanccc ncccntgnaa nccnntnttt tnggnnggnt gnggcngnaa 360
aatcnntaaa nccngggg 378

<210> 458
<211> 418
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(418)
<223> n = A,T,C or G

<400> 458
caacaacgag tggacgctgg acaagctccg gcagcggttc accaagaacg cgcaggacaa 60
gctggagctg cacctgttca tgctcagtgg catccctgac actgtgtttg acctggtgga 120
gctggaggtc ctcaagctgg agctgatccc cgacgtgacc atcccgccca ttattgtcat 180
tgtcccanan annnnanntn agaggcttan tantnaagct nctngaatnt aacncnccca 240
natctcntca tgnntttgat cctgttnnng annagtatat nnnttntcnc taatacggnc 300
ncnccntgat ntntaactat tcnctacant tttgnagatg agncngacta tctaccntga 360
annangaana atncncggat catcttncnt ntctngntnn nnnnacnnaa tacctcaa 418

<210> 459
<211> 403
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(403)
<223> n = A,T,C or G

<400> 459
aattcggcac gagaagcact ctatcagatc cttgggatgc aaaggtaaat aagacaaatc 60
ccttttaccc aaagagctca ccatcaagtt gggggaggga aagtggaatt caaaacatgt 120
taataaatca tcatagtact gtgagataag tgcaattaag aagctagtta taaagtatag 180
gggaaataga ggagtaatca tgtctgaaaa gtcaggaaag tcttcctaga ggtaattttt 240
aagctgattg ttttagaatt agtagaagct tgccagatgg aaaagtccag gcaaagtgta 300
acatgaatgg gaaaggccac agtctagaaa tggcagagtg tgttcctagt tgtttgtttg 360
ttgttgtacc tgcttgttcc aggaaggatt taatgnggtt att 403

<210> 460
<211> 409
<212> DNA
<213> Homo sapiens

<400> 460
aattcggcac gaggaaaaag ctttgaagag aaaatggagg aagcagaaac cagaaacttt 60
aaatcttgag aaaagaagat tgtctatcat gaaggagatt ctttctgatc aataccagat 120
gcaagatgtg ttggagaaat ctgatcatct aatagctgca gcaaaagagc tgtttcctcg 180

taggcgcaca gggtttccaa atgtaacagt ggctcctgat tcctctcagg gtcccattgt 240
ggtaaatcaa gaccctatca cccaatctat ctttaatgag tctgtcatag aacctcaggc 300
tcttaatgat gtagatggtg aagaagaagg aactgttaat agccagtcag gagaaagtga 360
gaatgagaat gagttggata actctctaaa ctctcagtct aacacgaat 409

<210> 461
<211> 397
<212> DNA
<213> Homo sapiens

<400> 461
ctcgcacgaa agccgccgtg gcgcaatgaa ggtgaatgcc ggcgcgctcg ccggccgagg 60
tgggacagat tcataacaca gtgttctttg tggcagtgaa aaacttaatt ttcaaccttc 120
tgatggagtg ttggtgttaa acctataatg aagtgtttcg taattgaaaa ttttccagtt 180
atatcagaaa gcttagtttt ctttttcttt cttggtgaag tgttttgcag gatctgtagc 240
ttttgggttt gcatattagc gtattttata cattttgttt ggccaggaga attttgtcat 300
gtgggtttta cctgatgatt ttgtagatct aaatgtgaca acatcgatct tagctgtttc 360
ttctttggct catttttccc actcagtggt tattata 397

<210> 462
<211> 411
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(411)
<223> n = A,T,C or G

<400> 462
cacccagcta tttttatttt ttggatgggg tctcactatg ttgccctggg tggtcttgaa 60
ctcctgagct caaggaatct tcccaccacg gcctcccaaa gtgctgggat tacagccctg 120
agcctggcct cactgtggtc tgttttgaga agcctttgtt tttaaacaga accacatgtt 180
ggtatttcag agccaactct tctgtcaaga atccaaatca gccaggcacg gtggcatgcc 240
tgtgtagtcc cagcaattcc agaggctgag acagaaggat catatgagcc caggagtttg 300
agatcagact gggcaacata gtgagactcc atttctttag aacaatacta atcacatgag 360
ggtggtaggc cattgcctgg gctggacagg tgagtagagg gcangtgtgc a 411

<210> 463
<211> 402
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(402)
<223> n = A,T,C or G

<400> 463
aattcggcac gagcctatct caaaaaaaga aaaaaaaaaa cggcaaatga tctgggtatt 60
tctcaaaaga agacacacaa atggccaaca aatacattaa aaaatgctca acctcactaa 120
tcatcaggga aattcacatc aaaatggcaa tgaggtatca tctcacccca gttgggatgg 180
ctattatcta aaagataaaa aaaaaaanca attgntggca aaaatgcaaa aaagggngaa 240
ctnttntncn ctgttagggg ggangtancc tagtcaatcc ctntagaaaa cagganggaa 300
gcncctcaaa aanctccaaa tanaactacc ttntgatccn ccangcccnc tnntgggaat 360
ttnttcaaag gaaaggaaat tnctttgaaa anacntctgc cc 402

<210> 464
<211> 400
<212> DNA
<213> Homo sapiens

<400> 464
ctcgcacgaa agccgccgtg gcgcaatgaa ggtgaaggcc ggcgcgctcg ccggccgagg 60
tgggacagat tcataacaca gtgttctttg tggcagtgaa aaacttaatt ttcaaccttc 120
tgatggagtg ttggtgttaa acctataatg aagtgtttcg taattgaaaa ttttccagtt 180
atatcagaaa gcttagtttt ctttttcttt cttggtgaag tgttttgcag gatctgtagc 240
ttttgggttt gcatattagc gtattttata cattttgttt ggccaggaga attttgtcat 300
gtgggtttta cctgatgatt ttgtagatct aaatgtgaca acatcgatct tagctgtttc 360
ttctttggct catttttccc actcagtggg tattataaca 400

<210> 465
<211> 411
<212> DNA
<213> Homo sapiens

<400> 465
ctgaagcggc gcatacggaa aggacgcatg gaatacctcg tgaaatggaa gggatggtcg 60
cagaagtaca gcacatggga accggaggaa aacatcctgg atgctcgctt gctcgcagcc 120
tttgaggaaa gggaaagaga gatggagctc tatggcccca aaaagcgtgg acccaagccc 180
aaaaccttcc tcctcaaagc gcaggccaag gcaaaggcca aaacttacga gtttcgaagt 240
gactcagcca ggggcatccg gatcccctac cctggccgct cgccccagga cctggcctcc 300
acttccccggg cccgggaggg ccttcgaaac atgggtttgt ccccgccagc gagcagcacc 360
agcaccagca gcacctgccg cgcagaggcc cctcgggacc ggaccgagaa t 411

<210> 466
<211> 413
<212> DNA
<213> Homo sapiens

<400> 466
gagacaccat ctccagattc ccatccactt cctcaccgcc gtgaacttgg agcatccaga 60
gatgctggag aaagcgtccc gggagctgtg gatgcgcgtc tggtcaaggg tgagtgtggg 120
gctctgggaa tcctctggga ggaccttgga tgactttctg accttcccca ggcacgtttt 180
cagggtcatg atcctgcccc cgcccggggg atctactgtc ctcccagtca cacccctctc 240
cccgcaccgc cttcctgctg tcttctcttc ttcccagaat gaagacatca ccgagccgca 300
gagcatcctg gcggctgcag agaaggctgg tatgtctgca gaacaagccc agggacttct 360
ggaaaagatc gcaacgccca aggtgaagaa ccagctcaag gagaccactg agg 413

<210> 467
<211> 422
<212> DNA
<213> Homo sapiens

<400> 467
aagaaaccct gaaggtcggg cctcaagtag gtctctttct agatgcagtc gtttttggag 60
gagaagactt tcgagccagc ataggtgcaa caagtagtaa agaaaccctg gatattctct 120
acgcccggca aaagattgtt gtcatagcga aagcctttgg tctccaagcc gtagatctgg 180
tgtacattga ctttcgagat ggagctgggc tgcttagaca gtcacgagaa ggagccgcca 240
tgggcttcac tggtaagcag gtgattcacc ctaaccaaat tgccgtggtc caggagcagt 300
tttctccttc ccctgaaaaa attaagtggg ctgaagaact gattgctgcc tttaaagaac 360
atcaacaatt aggaaagggg gcctttactt tccaagggag tatgatcgac atgccattac 420
tg 422

<210> 468
<211> 407
<212> DNA
<213> Homo sapiens

<400> 468
aattcggcac gagctcagat ttttaaatgg tctctacaac aaattgtcac ttgttgggtt 60
caattaagtg ctcattgtat aagtgcacat ggtacaaatc aacaccagct tataggattg 120
tggaaagaat taagagatga atttagtgat cttatatacc ctgtcagttg gtcatattgt 180
ggaagagctc tacaaaactt actgtactgt taactccaag attttcttcc aataacaggg 240
atgctagcca gatatttaat aatcaaagac caaaaatggc agtttaattt ttctacccaa 300
tatcctatgg catatgaatg atccaaattt gaagctccaa ggataggaaa aagcttactt 360
gtgcctgtcc tagacaagtc tagagtttat attgaaatca aaacttc 407

<210> 469
<211> 405
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(405)
<223> n = A,T,C or G

<400> 469
aattcggcac gagggggcat ggatgcaaga ggattggaga tgaggggccc tgtccccagt 60
tcaagaggcc ctatgactgg tggaattcag ggtcctggtc ccattaatat aggggcaggt 120
ggccctcctc agggacccag acaggtccca ggcatttcag gggtggggaa tcctggagct 180
ggtatgcagg gtacaggcat acaaggaaca ggcatgcacc ggagcaggca tacaaggagg 240
agggatgcag gggcaggca tacaaggagt cagtatacaa ggaggaggta tacaaggagg 300
aggtatacag ggggcannca ngcaaggtgg aagccagcct agcagtttta gtcctgggca 360
gagccaggtc actccncagg atcaggagaa ggcanctttg atcat 405

<210> 470
<211> 396
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(396)
<223> n = A,T,C or G

<400> 470
cggcggcagc ttcccggggg gccggttcgg gtctccgtcc cctggcggct accctggctc 60
ctactccagg tcccccgcgg ggtcccagca gcaattcggc tactccccag ggcagcagca 120
gacccacccc cagggttctc caaggacatc tacaccattt ggatcagggc gtgttagaga 180
aaaaagaatg tctaatgagt tggaaaatta tttcaagcct tcaatgcttg aagatccttg 240
ggctggccta gaaccagtat ctgtagtgga tataagccaa caatacagca atactcaaac 300
attcacaggc aaaaaaggaa gatacttttg ntaacattnt ctgaaatnca actggaagct 360
tcatgtgtca tgaacatctt ggacnaaact tttaag 396

<210> 471
<211> 409
<212> DNA
<213> Homo sapiens

<400> 471
aattcggcac gagcttacat gaacaaggta gagctggagt ctcgcctgga agggctgacc 60
gacgagatca acttcctcat gtaagcttca tccacatcct tcttgatgag gacaaattcg 120
ttctccatct ctgtacgctt attgatctca tcctcatact tgttcttgaa gtcctccacc 180
agcccctgca tgttgccaag ctccgcctcc agcttcagct tctcctggcc cagagtctcc 240
agctgccgcc taaggttgtt gatgtagctc tcgaacatgt tgtccatgtt gcttcgagcc 300
gtcttctgct gctgcaggag gctccacttg gtctccagca tcttgttctg ctgctccagg 360
aaccgtacct tgtctatgaa ggaggcaaac ttgttgttga gggtcttga 409

<210> 472
<211> 397
<212> DNA
<213> Homo sapiens

<400> 472
aattcggcac gaggcatgca atgatgctac ctgttctgac ccatcatatc cgctaccacc 60
aatgcctaat gcatttggac aagttgatag gatatacttt ccaagatcgt tgtctgttgc 120
agctggccat gactcatcca agtcatcatt taaattttgg aatgaatcct gatcatgcca 180
ggaattcatt atctaactgt ggaattcggc agcccaaata cggagacaga aaagttcatc 240
acatgcacat gcggaagaaa gggattaaca ccttgataaa tatcatgtca cgccttggcc 300
aagatgaccc aactccctcg aggattaacc acaatgaacg gttggaattc ctgggtgatg 360
ctgttgttga atttctgacc agcgtccatt tgtacta 397

<210> 473
<211> 408
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(408)
<223> n = A,T,C or G

<400> 473
aattcggcac gaggcgaggg cctggacgta gtgtcttcaa cagttgtaac agcagctgcc 60
atttgctgaa tgacagcatg tgtcacacac tctgctgagt attacaggca tttttttcta 120
atacaaatgc cccaagtgcc aggagagctt tcggcggcgc tcagacctca ccacgcacca 180
gcaagatcac ctaggcaagc ggccataccg ctgtgacatc tgtggcaaga gcttcagcca 240
gagtgccacg ctagctgtgc atcaccggac ccacctggag ccagcacccct acatctgctg 300
tgagtgtggg aagagcttca gcaacagctc cagctttggc gtgcatcacc gcacccacac 360
aggtgagaga ccttatgagt gcactgagtg ngggcggacc ttcacgat 408

<210> 474
<211> 429
<212> DNA
<213> Homo sapiens

<400> 474
caattcggca cgagggtgag cgagtgctgt gctttcatgg gcctcttctt tatgaagcaa 60
agtgtgtaaa ggttgccata aaggacaaac aagtgaaata cttcatacat tacagtggtt 120
ggaataaaaa tgctgtgagg cccaggcgct ctgaaaaatc tttgaagaca catgaggata 180
ttgtagccct ttttcctgtt cctgaaggag ctccctcagt acaccacccc ctcctgacct 240
ctagttggga tgaatgggtt ccggagagca gagtactcaa atacgtggac accaatttgc 300
agaaacagcg agaacttcaa aaagccaatc aggagcagta tgcagagggg aagatgagag 360
gggctgccca ggaaagaaga catctggtct gcaacagaaa aatggtgaag tgaaaacgaa 420
aaagaacaa 429

<210> 475
<211> 405
<212> DNA
<213> Homo sapiens

<400> 475
aattcggcac gaggaactat ctagtagctg gttccctccg aagtttccct caggatagct 60
gggacagcag ctgctgctgt ggaaaggcca gctggcaaga tgatggaaga aatctccatt 120
atggtagcct atgacgccca tgttttcagc cagctgcacg atgaagactt cctcactagt 180
ctggtggcca tcagcaagcc caggtctatg gtaccaacca agaagctgaa gaaatatgag 240
aaagaatatc agacaatgcg agagagtcag ctgcaacagg aagacccaat ggatagatac 300
aagtttgtat atttgtaggt aactccagct gttgcattta tactgggaat cttcataaga 360
agctgagaga aagagagggg aaaaagaaag tggctttcta ctttc 405

<210> 476
<211> 426
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(426)
<223> n = A,T,C or G

<400> 476
aattcggcac gaggagtcgt cggggtttcc tgcttcaaca gtgcttggac ggaacccggc 60
gctcgttccc caccccggcc ggccgcccat ttgcagcctt gtnncaanat tgncccaanc 120
tctcnaaaan aaaaaaaaaa ccntnaantt tttttttttc cnnggangna aanttttttta 180
aaaaaaanat ttnnntcnta ccaaaantaa annggnantn aantngtttt tnngnaangn 240
nnnnnaaana nngcctntng gnttnannaa nnaccnnttn nttaangnct ttnttttaaa 300
agggnggan c tttnaanttn cnnaaaangg aaaatggntt tttttnaaa antgggggtt 360
ttttnttna nctaggnnaa antttgtaan ggcnttggtt tttttaaaaa ttctgganaa 420
tttttt 426

<210> 477
<211> 421
<212> DNA
<213> Homo sapiens

<400> 477
aattcggcac gaggtggagt gacggtcaca ccgcggcgaa ttaattccca aagactcatg 60
ttacatgaga aagccaccaa gaagaccaaa gaaaaggaga caaggatggc tcttcctcag 120
ggatgcttga ctttcaagga tgtggctata gaattctctt tggaggagtg gaaatgcctg 180
aaccctgcac agagggcttt atacagggcc gtgatgttgg agaactacag gaacctggag 240
tctgtggatg aagtcttgct cttttgtcca ggctggggtg cagtggcgtg atctcggctc 300
acggcaacct ccacctccca ggattgactt ctaaggactc ttggtacatg aggaagaaac 360
ccggaagggg aagaggaaag caaaggcgtc aggaatggtt cttctcagat ggggcctcgc 420
t 421

<210> 478
<211> 401
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature

<222> (1)...(401)
<223> n = A,T,C or G

<400> 478
aattcggcac gaggttgtgt tcatgtagga cccaagggtg actgtaaaca tgataggagc 60
gctgggacat tgtcactgag gcagacagca gccactagtc cacaatggtt taaaaagtca 120
gtcctgtcat gtttacagtc acccttgggt cctaaattaa cagttgngtt catgnaggtt 180
cgtgncgtcg ttggctctga gacattgata ataaattttt ctcaacagng aanaaaaaan 240
ataaannnta aaaaaaaaaa aatnccccgcc cntnaaaann ntagggggnc tttttncgaa 300
aacccccccct ttnnnaaaac ctcnggnggn nnngnccnnc cccccccctna atgccgggaa 360
aaaaancntt ttttnaaaan ntcngngnnn ctttnnnttt t 401

<210> 479
<211> 402
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(402)
<223> n = A,T,C or G

<400> 479
ccaagacagt gcactagatg atgaaagatt ggcatcaaaa ctgcaagagc acagagctaa 60
aggagtgtcg attccattga tgcatgaagc aatgcagaag tggtattaca aagatcctca 120
gggagaaatt caaggcaagt tgttcctttt tcctttaaat actgaagtgt gtgccattac 180
ctccagaatc tctaagaagg gatttgttta atttaaatta tagtagaaaa agaagtcaac 240
aagcacacac gcgcgcacac acgcagacta gaagtgtttc tgatttcaga tgtttttaga 300
tttcttccca attttggaat aattgcattg tcataccagt tgagcatccc taatctgaaa 360
atccaaantc cataatgctc tattgaatgn ttcctttgtg tg 402

<210> 480
<211> 405
<212> DNA
<213> Homo sapiens

<400> 480
aattccgttg ctgtcggttt cattatataa aaggaacatc ttcccatagc atattctatg 60
aaaggggttt cattccaagt tgagttttca aaaaaaaggt cttcctaaag ctaccatttt 120
caaccgtcct tgttatctag tacaacataa ataacagtct taaaaattgc actaatacca 180
gtgccccccct ggctctccaa atctgttctt tgctcttgta tctgctggac gcttgaagac 240
aggtgcactg tctcgtatgt atttgaatta tgaacagtaa tttctaatga attctaaaat 300
ggtcattgta agtgaaagcc tctcgctacc acttcctctt ccaactacat aaatatattt 360
caatgtattt ccagttttgg gaaagttttc aatacataca tcaag 405

<210> 481
<211> 418
<212> DNA
<213> Homo sapiens

<400> 481
aattcggcac gagagcatac acatgcatgc atgcatgagt gtatacacac agtaatgcat 60
actagttaaa cactcacatc attttaatta ttacttttgg ctaggattta ttgaagcata 120
atttactaaa gcttctccag aagccactaa ctccaaaaga cagaatcaca atacagggca 180
tatgctgagg gcctctgggt tgggccaaga atttcagact gggcgccatg accaagggca 240
atctgcagtc actcaagagt acttggaaga ttgatttagc agtggtgctt ggaacagact 300

gggccaggaa gggctataag cagggagagt catttaaaag ttatagtatt gatttaggat 360
cagggtgaaa aggaactgaa gtggagcaag gtgagacagg aaggaatgga ggactctg 418

<210> 482
<211> 409
<212> DNA
<213> Homo sapiens

<400> 482
gcggcgccgc ctcctgctcc tcccgctgct gctgccgctg ccgccctgag tcactgcctg 60
cgcagctccg gccgcctggc tccccatact agtcgccgat atttggagtt cttacaacat 120
ggcagacatt gacaacctgc ctagggtagt taaaagacga gtgaatgctc tcaaaaacct 180
gcaagttaaa tgtgcacaga tagaagccaa attctatgag gaagttcatg atcttgaaag 240
gaagtatgct gttctctatc agcctctatt tgataagcga tttgaaatta ttaatgcaat 300
ttatgaacct acggaagaag aatgtgaatg gaaaccagat gaagaagatg agatttcgga 360
ggaattgaaa gaaaaggcca agattgaaga tgagaaaaag gatgaagat 409

<210> 483
<211> 410
<212> DNA
<213> Homo sapiens

<400> 483
aattcggcac gagacaccag atcctgaaag gggttaaatc tactttgaaa tgaatctgca 60
atcagtattt caaagctttt ctggtaattt tagtgatctt atttgattag acttttcag 120
aagtactaaa taaggaattt taacaggttt ttattaatgc acagataaat agaagtacag 180
tgaggtctat agccatttta ttaaaatagc ttaaaagttt gtaaaaaaat gaatctttgt 240
aattacttaa tatgttagtt aagaacccgt caagcttata tttgctagac ttacaaatta 300
ttttaaatgc atttatcttt tttgacacta ttcagtggaa tgtgtaagct agctaattct 360
tgttttctga tttaaagcac ttttaaatct tatcctgccc cctaaaaaca 410

<210> 484
<211> 425
<212> DNA
<213> Homo sapiens

<400> 484
aattcggcac gagagtcaat ccaaatgatt tcagagacct gactttgctg tttgaccact 60
ctcagctttt tggtatcaga ctcccttcac tggctcccaa aaactccagg gccatgtttc 120
tggaacagtg gaaagcaggg aaatagaaat ggggcctcag gaattagaaa taaggctttg 180
gcattcaaat gtcgcaccta gcatgctgtg actagcgata agtgtgcaag gagtgttgaa 240
gcagtaggaa gacttgtggt gaggcggggc aggggatggg ggtgagggac ctgcagagag 300
accagggcct tcctgaaggg ctctgccctt cccggctggc aggggccacc tggggctacc 360
aacaggatac tgtgcttctc cagtaggtcc caccccctcc aggacagaga ccctggtgga 420
ggaga 425

<210> 485
<211> 412
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(412)
<223> n = A,T,C or G

<400> 485
gaacaggtgg tgttcaccaa tcccttctgg gatgctgagg tgatccggcc cctacccatg 60
gacagcagtg cctattcctt cacggccttt gtgggagtcc ctgccgtcga gttctccttt 120
atggaggacg accaggccta cccattcctg cacacaaagg aggacactta tgagaacctg 180
cataaggagc tgcaaggccg cctgcccgcc gtggcccatt cgaggcatca ccgacaaatt 240
ccncacnagt gactnatnac ctgngtgnca tcnactatgc gggagacact ttcttcgana 300
angacacaan ntccatcctt ntaaaaanng acggaatgnn gaatatannn atatcgcaan 360
ctccnnatca nctggttgga atgaaaaggc ttacaatgaa agnttgntgg cc 412

<210> 486
<211> 488
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(488)
<223> n = A,T,C or G

<400> 486
ccctatacaa gctcttgntt ntggagctcc atccantanc tnccngttng ngaggctata 60
tcctttcaca cccatcaggc actgtgaagt aagcaggaag acaacctgag gttgtctctt 120
tactttgagt tcctacataa taaattgcag cctaatttag tacataaacc caaacctaat 180
ttaggagtaa attttttgta gcagatagcc agatttcagc caatcacagg cttccagcta 240
acaagactat gcccaaataa ggcaaatgcc tcatcacatg atgctcaaat aaggcagcca 300
cctaggcgag gccaatcagg taacttttct actttgctta attgtcagcc tgacaaattt 360
gctgcttatg actgctgagc agagctgcta aacctcttct ggtttggagt gctgccttat 420
atatgaattg gtctttggtc acataaaatt gggtaaattt aacttctcta aaggtttgna 480
ttaaattg 488

<210> 487
<211> 413
<212> DNA
<213> Homo sapiens

<400> 487
aattcggcac gaggaacaaa gacacaacat accagaatct cttggacaca ttaaaagcag 60
tgtgtagagg gaaatttata gcactgaatg cccacaagag aaagcaggaa agatccaaaa 120
ttgacactct aacatcacaa ttaaaggaac tagagaagca agagcaaaca cattcaaaag 180
ctagcagaag gcaagaaata actaagatcg gagcgaacag aaggatcctc tagaagagcc 240
taaagcaaag aagcacaaaa aatcaaagaa gaaaaagaaa tccaaagaca aacaccgaga 300
ccgcgactcc aggcatcagc aggactcaga cctctcagca gcgtgctctg acgctgacct 360
ccacagacac aaaaaaaaga agaagaaaaa gaagagacat tccagaaaat cag 413

<210> 488
<211> 420
<212> DNA
<213> Homo sapiens

<400> 488
gccaagttgt tggactcaca gggaaaggtg accaagtggt tcaataactc tgcagcttcc 60
ctgacaatgc ccaccctgga caacatcccg ttcagcctca tcgtgagtca ggacgtggtg 120
aaagctgcag tggctgctgt gctctctcca gaagaattca tggtcctgtt ggactctgtg 180
cttcctgaga gtgcccatcg gctgaagtca agcatcgggc tgatcaatga aaaggctgca 240
gataagctgg gatctaccca gatcgtgaag atcctaactc aggacactcc cgagtttttt 300
atagaccaag gccatgccaa ggtggcccaa ctgatcgtgc tggaagtgtt tccctccagt 360

gaagccctcc gccctttgtt caccctgggc atcgaagcca gctcggaagc tcagttttac 420

<210> 489
<211> 414
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(414)
<223> n = A,T,C or G

<400> 489
cgacatcaga agatcattga ggaggcccca gcgcctggta ttaaatctga agtaagaaaa 60
aagctgggag aagctgcagt cagagctgct aaagctgtaa attatgttgg agcagggact 120
gtggagttta ttatggactc aaaacataat ttctgtttca tggagatgaa tacaaggctg 180
caagtggaac atcctgttac tgagatgatc acaggaactg acttggtgga gtggcagctt 240
agaattgcag caggagagaa gattcctttg agccaggaag aaataactct gcagggccat 300
gccttcgaag ctagaatata tgcagaagan cctagcaata acttcatgcc tgtggcaggc 360
ccattngcgc anctctctnn cctcgagcag acccttccac caggattgaa actg 414

<210> 490
<211> 430
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(430)
<223> n = A,T,C or G

<400> 490
aattcggcac gagaagacga tcagataccg tcgtagttcc gaccataaac gatgccgacc 60
ggcgatgcgg cggcgttatt cccatgaccc gccgggcagc ttccgggaaa ccaaagtgct 120
gggattatag gcgtgagccg ccacacccgg cctcaaataa ctatgtttta ttcactttta 180
gtatagtagg ctctggaatg gaatgtatct ttgccactcc tagactgttg cccctgaagt 240
gttctaacat acattcgtaa tcatgcaacc accacctcca ccatccgcat cagaactctt 300
tcattagctc tctgttgcct accactccaa accatagcag ttgggcacct gcaccttctg 360
aatggcagcc tttttgttta tcctgntgcc cttcctaaca tgtactttgc tccttttctc 420
ctggcagaaa 430

<210> 491
<211> 411
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(411)
<223> n = A,T,C or G

<400> 491
aattcggcac gagggttgtt cagactgagc ttcctgcctg cctgtacccc gccaacagct 60
tcagaagaag gagcagcccc tgggtgcgtc cactttctgg gcacgtgagg ttgggccttg 120
gccgcctgag cccttgagtt ggtcacttga accttgggaa tattgagaga aacattagaa 180
tcattgccct ttagaagagc agaactatga tgcctcctgt cagggatgga acgaggcatt 240

ccatgcagat gacaacccaa agagagcaag agtggctcta tttatatcag acaaaatcga 300
ctttaagtca aaaactgcac aagagacatt aaagtatatt atataatgaa aaaagcatca 360
atccccatga agatataaca attattaata tatgcnctca tatcagagcc c 411

<210> 492
<211> 410
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(410)
<223> n = A,T,C or G

<400> 492
tccagatgta ccttgaatac tgttgagagc tagtcagatg aatgagactg gcctgccacc 60
tagcatctgc acatgaggta ttcttctaca ctgatttttc atacaggtgt gctagatttt 120
aatgggtcac ttaaattcag ttagtctcca acatataaat tctccacaac ataggatata 180
gtatacactc tacttgaccc aagatgataa aactgaaaaa gacaaaaaaa aattttattg 240
ccataaatta atccagtagg tatatttgag aaagcacgca tcagttggtt agggcaataa 300
gcgcctctac cacgttgcca tgtgggccnt tgnacngggn tctgctgctg ntcgagatat 360
ctccatctca ancatctgca gaaaaaaatc atggtacata gggtccaggc 410

<210> 493
<211> 432
<212> DNA
<213> Homo sapiens

<400> 493
atcatttaga ggcagaagtt aagttctgca aggaggaact ctctggaatg aaaaataaaa 60
tacaagtagt tgtgcttgaa aacgaagggc tccagcaaca gctaaaatct caaagacaag 120
aggagacact gagggaacaa acacttctgg atgcatccgg aaacatgcac aattcttgga 180
ttacaacagg tgaagattct ggggtgggcg aaacctccaa aagaccattt tcccatgaca 240
atgcagattt tggcaaagct gcatctgctg gtgagcagct agaactggag aagctaaaac 300
ttacttatga ggaaaagtgt gaaattgagg aatcccaatt gaagtttttg aggaacgact 360
tagctgaata tcagagaact tgtgaagatc ttaaagagca actaaagcat aaagaatttc 420
ttctggctgc ta 432

<210> 494
<211> 386
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(386)
<223> n = A,T,C or G

<400> 494
aattcggcac gaggctgctc cagctgagga gaagaaagtg gaagcaaaga aagaagaatc 60
cgaggagtct gatgatgaca tgggctttgg tctttttgac taaacctctt ttattgaaca 120
tgttataaaa gaggtttagt caaaaaaaaa aaaancncgn ccctttaaan ctatagggng 180
ncgtnttncg taaanccann cntganaaaa nncntngnnn agttnggnca acccncannt 240
aaaangcngg gaaaaaaang ctttnttngg naaattnggn aggctntngn tttnttngaa 300
nccnttntaa ncngcannaa ncaagtnanc ancancaatn gcnttcnttt tntgtttnag 360
gtncnggggg nggggggga gttttt 386

<210> 495
<211> 407
<212> DNA
<213> Homo sapiens

<400> 495
aattcggcac gagagacagt cttactgacc tttatgtcca acatgcaata ccattgcctc 60
agagggattt gccgaagaat agatgggggа aaatgatgga aaagaaaaga gaacaacatg 120
agattaaaaa tgagactaaa aggagtagca ctgtagatgg gttaaggaaa agacccctca 180
tcgtatttga tggaagttca acaagtacaa gcataaaagt gaaaaagaca gagaatggag 240
ataatgatcg actgaagcct cccccgcagg caagctttac cagtaatgcc tttagaaaat 300
tatcaaattc ctcttcgagt gtttcacccc taattttgtc ttccaatttg cctgtgaaca 360
ataaaacgga acacaataat aatgacgcta aacagaacca tgactta 407

<210> 496
<211> 413
<212> DNA
<213> Homo sapiens

<400> 496
aattcggcac gaggtacacc ctatatattt ctgttcagta tccattcact agttcttcat 60
ttataaatat catcttcccc attctgctgc tgaatgccac acatccatcc agtctgagaa 120
agtgagagag gcaatcatgc caagaacaag ccagcaaagc tctttcacca gatgtagact 180
gtagccctgc tgccttccct ccagcgagtc tgccagcatg cttcttcatc ctttttatat 240
gttctttgct tcctacttcc ctgtcttcca acatactgtt cacttactct ggcagtcttt 300
ctgcttttca ttaagcctca aaatctcctc tgttctactt ggcaccacaa gctatgccta 360
tatatgtatt tctgacttgg caggatagtt caagggctgg cagtttttat tta 413

<210> 497
<211> 412
<212> DNA
<213> Homo sapiens

<400> 497
aattcggcac gaggagagag ctaagcactt tccactgcat gctaggatat agggcttgca 60
acatagaccc agccctacag ccgtcacccc agctggggca ggcagctcct aggcgctctc 120
tcctgacctc tggcagccca gtcatcaaag cagagagacg tggcggcatg tgggcagcat 180
gcccaggttc cttgctgact cagcacttat ttctgtagtt ttaaaaaaga atttaatgtt 240
tttggttgta ttttttttggg ggggagaggg tgggcaaaaa catgggggta gttctgagtt 300
gttagaaatg tttctgaatc aagtttgttt gaagacacgt gtgcctttgt acccattata 360
agatggtcat aagacccaag aactgataag ctttggtttt ttttttgtt tt 412

<210> 498
<211> 398
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(398)
<223> n = A,T,C or G

<400> 498
aattcggcac gagcagcaac caaccagagc agttcgactg ggccatcaat gaccgcatca 60
atgagatggt ccacttcgac ctgccagggc aggaggaacg ggagcgcctg gtgagaatgt 120
attttgacaa gtatgttctt aagccggcca cagaaggaaa gcagcgcctg aagctggccc 180

atttgcgtna tttgnnaann ncnaanccnn ggcgtntgac caaanncacc aagttcgtgc 240
gggacatgat tcgggaggtg tgtggctttg ccccgtacna gcggngcncc atggagttac 300
tgaaggtctn caggacaaac ggccctnaaa tttatcaaga aaagggtggg gacncacatc 360
cgtccaagag gaacgggagg agctgagcaa cgtctggc 398

<210> 499
<211> 397
<212> DNA
<213> Homo sapiens

<400> 499
ggttcaaata gataaattgg aatgagggtt aatcagaagc taacagggca gattagcatc 60
caagatggag ttgctttggc ctctagatgg ggcatcctgt gcaatttgct aaggtgctta 120
tttggctttc tctggtccta agttggaagc aggggcaaaa ttaaagaaac tgtcattcat 180
tcatttcctg acgattctgg gccaattgtt acacaagtta ttgtttagct tcctggattg 240
tcactaaaga aagcaatctg gtttcctgca attctgactt acagcaggct gatctcctgg 300
gttgtttatt gttgatgagg gtgttggttt ctcgggcagc ttgctgcagg ttgtgggtcg 360
aatttctaat tttacatatg gcatggccac tgccatt 397

<210> 500
<211> 416
<212> DNA
<213> Homo sapiens

<400> 500
aattcggcac gaggcagcac atatactaaa attggaacga tacagagaag attagcatgg 60
cccctgcgca aggatgacac gcaaattcgt gaagcgttcc atatttttca aggagctcac 120
agtatagtag gggagacaaa gagatatttg gagaacaatg agataagtcc tgggtgtgat 180
ataacagcat agataagggc catctaaccc agtctgggtc aagagggaag aatgagttag 240
aagtcttaaa atggaagcct tgagatggaa gtaaagtagg tgtttgccag gtagacagga 300
aaaggacatt caaaagagaa ggaatacgat gggcaaagtc ataaaggcaa gaaaaagcac 360
agtacagtgt ttcatttaag gaactgcaaa ttgtttttta gctgaagaat tagatc 416

<210> 501
<211> 426
<212> DNA
<213> Homo sapiens

<400> 501
agaagatcat taagagagtg attgctcttg aaggagatat tgtcagaacc ataggacaca 60
aaaaccggta tgtcaaagtc ccccgtggtc acatctgggt tgaaggtgat catcatggac 120
acagttttga cagtaattct tttgggccgg tttccctagg acttctgcat gcccatgcca 180
cacatatcct gtggccccca gagcgctggc agaaattgga atctgttctt cctccagagc 240
gcttaccagt acagagagaa gaggaatgac tgcatgaatc tacctgagtt gctggcattg 300
ggaggccagt tactggaaag gaatggaaaa aagaagcctc caaaagggaa aaacttctga 360
caatatgatg ctgtgcgaga aatatttaca gcacattaaa acgatctgta ttattaaata 420
aataat 426

<210> 502
<211> 426
<212> DNA
<213> Homo sapiens

<400> 502
ctgacatgtg ccctgaaaga aggcgatgtc actattggag aagatgcacc aaatctttct 60
tttagcacca gtgtgggaaa tgaggacgcc aggacagcct ggcccgaatt acaacagagc 120

catgctgtta atcagctcaa agatttgttg cgccaacaag cagataagga aagtgaagta 180
tctccgtcaa gaagaagaaa aatgtccccc ttgaggtcat tagaacatga ggaaaccaat 240
atgcctacta tgcacgacct tgttcatact attaatgacc agtctcaata tattcatcat 300
ttagaggcag aagttaagtt ctgcaaggag gaactctctg gaatgaaaaa taaaatacaa 360
gtagttgtgc ttgaaaacga agggctccag caacagctaa aatctcaaag acaagaggag 420
acactg 426

<210> 503
<211> 470
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(470)
<223> n = A,T,C or G

<400> 503
tttgactcct tntacaagcn acttgctntn tngcnggatc ccatcgantc naattcggca 60
cgagcggaca ctggtgaaca aggaagatcc ccccaaagag ctgccagctg ctgagcctgt 120
tctcagccca ttggaaggca ccaagatgac tgcgaataat ctgcaccctc gagtcactga 180
ggaggacatt gttgagcttt tctgtgtgtg tggggccctc aagcgagctc gactggtcca 240
tcctggggta gcggaggtgg tgtttgcgaa aaaggacgat gccatcaccg catataagaa 300
gtacaacaac cggtgcctcg cagggtgaac tctgcctcct ctgtgaccac gcagcccaca 360
gaattcaaaa tcaagctttg agcaggggag tgaggcacca aaagtggggg cagaggaggg 420
tggctctgtt tcccaaggcg aagcttatga ccaatgngcc atctgactgg 470

<210> 504
<211> 434
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(434)
<223> n = A,T,C or G

<400> 504
ggtgggttgg ttgggcgcag gaggacgggg gcgcgcttcc cataacatta ccctggctga 60
gcgtgaggct ccagggctgg gcaccgggtt gacctcttat tcctcgctga gggcatcgtt 120
accgcctgtg gctgcaagcc gaggcgcgcg ggtggaaact gggtcgaggt ctgggtagac 180
gtctgagcga tctgcacaag gagtggcgca gtctggaatt tgattgagga ttcctaacgc 240
cctccgcttg atgttctggt gattcccggg ggctcggctt cggaggaagg caccaagaaa 300
ctgataatgt tcctttgaat tggcttctgt atttgcttca tcaatgtctc tcatactgaa 360
tatcttaaga gagatgctgg aatattttgg cgttcctgta gaacaggntt tgctgatttg 420
ggaaaataaa gact 434

<210> 505
<211> 399
<212> DNA
<213> Homo sapiens

<400> 505
aattcggcac gagcctagac atcatctacc agccacaggc tatcttcaga gtccgggctg 60
tgactcgctg caccagctcc ttggagggtc acagtgaggc agtcatttct gtggccttca 120
gccctacggg aaagtacctg gccagtggct ctggagacac caccgtgcgc ttctgggatc 180

tcagcacaga gacaccacat ttcacatgca agggacacag acactgggtc cttagtatat 240
cctggtctcc agatggcaag aagctggcct caggctgcaa gaatggccag attctcctct 300
gggacccaag cacagggaag caggtgggca ggaccctcgc tggccacagc aagtggatca 360
caggcctgag ctgggagccc ctccatgcga accctgagt 399

<210> 506
<211> 414
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(414)
<223> n = A,T,C or G

<400> 506
agctgcagaa gctgcacagt gagatcaagt ttgccctaaa ggtcgacagc ccggacgtga 60
agaggtgcct gaatgcccta aaggagctgg gaaccctgca ggtgacctct cagatcctcc 120
agaagaacac agacgtggtg gccaccttga agaagattcg ccgttacaaa gcgaacaagg 180
acgtaatgga gaaggcagca gaagtctatn cccggctcnc nngagagcnn nncagacaac 240
tgtggggaac gctgngctgt ntgnanttgg tcccttgggt tttttttnct gcctaattta 300
tgttattncc aaccaacatg anctgactat aancgggttt ttaatnaaaa aaaaananaa 360
aaacnncnnc ccttttnatn tttntgnngg ngnnttcngt ccccgcnntn taaa 414

<210> 507
<211> 397
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(397)
<223> n = A,T,C or G

<400> 507
aattcggcac gagcccacct cccagcccgg aggccatgac agcctggtgg accgctggat 60
ccgcagccgc ctgacagagg ctgtgaggct cagcaatcaa ggcttccagg cctacgactt 120
cccggccgtc accactgccc attagatatg ttgnatnana antatgaaga catggaacgt 180
gaagaaaacg gagataatac tatttncact ggtctgttgt acagtgaggc tgacanatgc 240
ccantatgtc ttaattgtct attaaaaaag gaagttgntt tnncnaaaag tgcattnttg 300
actttggatn aattgnattc nttaangggc angnggcttt tccataagtt atttganttn 360
ttcnttatat cacctttgtg gaanaaccan atnaaat 397

<210> 508
<211> 485
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(485)
<223> n = A,T,C or G

<400> 508
tttgaanccc ctnnaaagcn cttgntttga tgccnntccc atcgattcgg tttgctagaa 60
aacctaattg ggagtgcgag gcagagaacg ttcagcacct ttgttcctcc cgaaccctcg 120

ggacagaggc agggttctga gggcagggat tccccctcgt cttggcccca ccgcccgggc 180
tgggcactaa actcgggccg cggcggggcg agcgaggcgg gctccggagg gagctgacgc 240
ctgatgatgg cgcagtccaa catgtttacc gtggctgatg tgttgagtca agatgaactg 300
cgcaaaaagc tataccagac gtttaaggat cggggtatac tggatacact caagacacaa 360
cttcgaaacc agctaattca tgagttgatg caccctgtat tgagtggaga actgcagcct 420
cggtccattt cagtaaaaag ggagctcctc ttaataggcg cctctaactc tttagtggca 480
gatca 485

<210> 509
<211> 414
<212> DNA
<213> Homo sapiens

<400> 509
aattcggcac gagggtgttt gtgaatcgcg ttccatcctc gtcctttgtg cctctctgtt 60
tgctgtgctt ggggggctgg caagattccg gataagggga actggtgggc tggaaagagg 120
catgcggtgg ccctcaagag ccagaagaat gactgctaac tggtgcctgg gggacctatc 180
ccgccgtaat tgtggtgcta gagccgcatt gtgtcctttg cctcggtcca acctttggag 240
acctttcacg gctctagcct tggttgggag ccgagggaag gagtttggga atgtttggct 300
ctgtgtaaca atgaaataat tcattggtga tgctctctgg ccggagtctg taaagataag 360
gtgcatttca gaacattgca actcttgcgg agggttttag gtaacgtgaa atgg 414

<210> 510
<211> 401
<212> DNA
<213> Homo sapiens

<400> 510
tatcgctcta cccaggcggt ggtgtcgatc tacgttccaa ttggggccgt accatggcgg 60
agaagactca aaagagtgtg aagattgctc ctggagcagt tgtatgtgta gaaagtgaaa 120
tcagaggaga tgtaactatc ggtaagaaat agtttattta ctgtttttca agaattgatg 180
tgatttaatc tattttagtg ctttacaatt agataccgtc ttccatgttt atttcactga 240
tgtcctagtt ttattgacaa aataatgcat tttctcctat gtgtttaaat ttctgaaaga 300
atgtagtgtg atggaggctg tgtttaaact cctatctgaa atactaatga ggctgtataa 360
caaagtcatt catgtattta agagagatct gttgtgacct g 401

<210> 511
<211> 402
<212> DNA
<213> Homo sapiens

<400> 511
ctgaaggatg cagttgaggt tgatccaggt ttatccgaat atgctacctt tctgagcctt 60
aaaccttcat ctctcaggtg ttgattttct tctgatagct tcatcatttc tccctgaagt 120
cttttacact cttctgttag tttccttgtt tcagtatcat gaagtgaagc actgtgtggt 180
tgtggcgtgg gcccatctgg cttataacct acagtgggac agctttgctg ggttccatgt 240
cattcaattt atcattttca ttggggatct ccatttggaa tccattaatt catgaggttt 300
tgcctcattc cacacagctt ccatatctga agtgtttagt ggagcaaaaa ttgtaccata 360
aacttgtgtt tactcttttc attcggatca taagtcaaag gg 402

<210> 512
<211> 415
<212> DNA
<213> Homo sapiens

<400> 512

tttagatgtt ccagagtcct cagagtccat gaaaggactc acagtggaga aaagccctat 60
gaatgtaaac aatgtggtaa agccttcaaa tattctagta acctatgtga gcatgaaaga 120
actcacactg gagtgaaacc ttatggatgt aaggaatgtg gtaagtcgtt tacttcttcc 180
agtgcccttc gaagccatga aaggactcat actggagaaa aaccctatga atgtaagaaa 240
tgtggtaaag ccttcagttg ttccagttcc cttcgaaagc atgaaagagc ttatatgtgg 300
taaaaaacaa caacaacaaa acacctctgt caatgtaaga agtgtgttaa agctttcagt 360
tattctagtt tcattagaac accgtgaaaa aattaaaaac tcaaattaga gagaa 415

<210> 513
<211> 392
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(392)
<223> n = A,T,C or G

<400> 513
aattcggcac gaggttcggt tgaaggattc tgtgtgctgt cggacccaga gggtgacggc 60
gccgctagga tgaagctcgt gagattttg atgaaattga gtcatgaaac tgtaaccatt 120
gaattgaaga acggaacaca ggtccatgga acaatcncag gtgtggatgt nnncatgaaa 180
ncccatntta cnnctgcnat ncnganentg acttaancct atatcttcnn cntttngctt 240
tgctcatttt nnagntnntn ntttctcntt ctnttattcn ccntcttnta ttccncnnna 300
cctcttcttn gnntttnacn atnccttca ncctctaatn tnttctcttn tnagatntnc 360
ttctnctctc ncntttnttc ntnntcntgt tt 392

<210> 514
<211> 421
<212> DNA
<213> Homo sapiens

<400> 514
aattgccgcc gacgctgctt cagcttattc cttgtggcct ctgcgggtcc tgcctcaacc 60
atgatgatcc acggcttcca gagcatccac cgggatttct gcttcgggcc ctggaagctg 120
acggcgtcca agacccacat catgaagtcg gcggatgtgg agaaattagc cgatgaatta 180
catatgccat ctctccctga aatgatgttt ggagacaacg ttttaagaat ccaccatggg 240
tctggctttg gaattgacgc tcaatgctac agatgcgtta agatgtgtaa acaactacca 300
acagaatgct taaagtggcc tgtgctgaag agtggcaaga aagcaggacg gagggtgaac 360
actccaaaga ggttattaaa ccatatgatt ggacctatac cacagattat aagggaacct 420
t 421

<210> 515
<211> 423
<212> DNA
<213> Homo sapiens

<400> 515
aattcggcac gagacgacgc agtggccctg aagtctgcag acattgggat cgccatgggg 60
cagacaggga cggacgtcag caaagaggcc gccaacatga tcctggtgga tgatgacttc 120
tcagccatca tgaatgcagt ggaggaaggc aagggtattt tttacaacat caaaaacttt 180
gtccgattcc agctgagcac gagcatctcc gccctgagtc tcatcactct gtccaccgtg 240
ttcaacctgc ccagcccccт caacgccatg cagatcctat ggatcaacat catcatggat 300
gggccaccgg cgcagagctt gggggtagag cccgttgaca aagacgcctt caggcagcca 360
ccacggagtg tgcgggacac catcctcagc agagccctca tcctgaagat cctcatgtcc 420
ccg 423

<210> 516
<211> 393
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(393)
<223> n = A,T,C or G

<400> 516
ccgcagggcc gtaggcagcc atggcgccca gcccggaatg gcatggtctt gaagccccac 60
ttccacaagg actggcagcg gcgcgtggcc acgtggttca accagccggc ccggaagatc 120
cgcagacgta aggcccggca agccaaggcg cgccgcatcg ctccgcgccc cgcgtcgggt 180
cccatccggc ccatttgcgt catttcgcaa tttnaannnn nccncctntt ttttnntngg 240
aannanacnt ttttngtttt ttaaaaaaaa nttnaaaaaa aaaatattgg gggggtttta 300
aanaaaaaaa anncctnttt nnnannngga aaaaanttgt tttttttat taaanacncn 360
ccnnantttc taananaana nnngnagccc ttt 393

<210> 517
<211> 387
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(387)
<223> n = A,T,C or G

<400> 517
gccgcttcag cgggggacgt agccatgaag gaagagaagg agcacaggcc taaggagaag 60
cgagtaaccc tgttaacccc cgccggggcc acaggcagcg gtggtgggac ctcgggggac 120
agctccaagg gggaagataa gcaggatcgc aacaaggaga agaaagaagc gctgagcaag 180
gtggtaattc gaagattacc tcccactttg accaaggagc agcttcagga acatcttcaa 240
cctatgcctg agcatgatta ttttgagttt ttttctaatg atacgagttt gtatcctcat 300
atgtatgcca gagcatacat caactttaaa aaccaagagg acattatttt gttcagggat 360
cgctttgatg gntatgtatt ccttgac 387

<210> 518
<211> 415
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(415)
<223> n = A,T,C or G

<400> 518
aattcggcac gagcttaaca tttcttatag tgtttgttgg tgatgaattc tttcagcttt 60
ttatttattg tttgagagtc ttgctctgtc acccaggctg gagtgcaatg acacaattat 120
ggctcactgg agccttgacc ttccaggctc aagcaaacct cccaggctca gcctcccaag 180
taactgagac tccaggcgtg tgccactatg cttggctatt tttgtatttt ttttagagac 240
aggttcttac tatgttgccc gggctggtct cgaactctga ggctcaagcg tctgcccacc 300
tcagccttaa agngcttcca gcttttatgt gtctgaaaat atctttattt cacttcgcta 360
aaatatattt tcatcacaca taaaattcta aggttgcagg ttttgccttc agcac 415

<210> 519
<211> 408
<212> DNA
<213> Homo sapiens

<400> 519
ccgctgctca cacctttcta ctgaagcatc ctgatgacga aatgatgaag aggaacatgg 60
catattataa gagcctgcct ggtgccgagg actacattaa agacctggaa accaagtcat 120
atgaaagcct gttcatccga gcagtgcggg catacaacgg tgagaactgg agaacatcca 180
tcacagacat ggagctggcc cttcccgact tcttcaaagc cttttacgag tgtctcgcag 240
cctgcgaggg ttccagggag atcaaggact tcaaggattt ctacctttcc atagcagatc 300
attatgtaga agttctggaa tgcaaaatac agtgtgaaga gaacctcacc ccagttatag 360
gaggctatcc gggtgagaaa tttgtggcta ccatgtatca ttacttgc 408

<210> 520
<211> 416
<212> DNA
<213> Homo sapiens

<400> 520
aattcggcac gagggtgggc acacacaagg gcttcgtgca gatctgggac gcagccgcag 60
ggaagaagct gtccatgttg gagggccaca cggcacgcgt cggggcgctg gcctggaatg 120
ctgagcagct gtcgtccggg agccgcgacc gcatgatcct gcagagggac atccgcaccc 180
cgccactgca gtcggagcgg cggctgcagg gccaccggca ggaggtgtgc gggctcaagt 240
ggtccacaga ccaccagctc ctcgcctcgg gggggcaacg acaacaagct gctggtctgg 300
aatcactcga gcctgagccc cgtgcagcag tacacggagc acctggcggc cgtgaaggcc 360
atcgcctggt ccccacatca cacgggctgc tggcctcggg gggcggcaca actgac 416

<210> 521
<211> 411
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(411)
<223> n = A,T,C or G

<400> 521
aattcggcac gaggccacag ccgggtcacg tggccggttg ccccccatga cttgctggct 60
gcggggcagt cacggtgacg ttcggtccga cctgccgagt ggccaggcta cctcagtcac 120
ctgtgtggtc cnantgctnn catggacctg ggacccatgc ncaagagnna ccgcggggac 180
cnagaggcat ttgaggagac tcatntgacc tcccttgacc cagtgaaaca gtttgctgcc 240
tggtttgagg aggctgttca gtgtcctgac ataggggaag ccaatgccat gtgtctggct 300
acctgcacca aagatggaaa accctctgct cgcatgttgc tgctgaaggg cttcnggaaa 360
gatggcttac gcttttcact aacttcgaga gtcgaaaagg aaaagagctg g 411

<210> 522
<211> 451
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(451)
<223> n = A,T,C or G

<400> 522
tttgnttncc tttnnccanc cnntcgcann ancatatgct tgtctcaaag attaagccat 60
gcatgtctaa gtacgcacgg ccggtacagt gaaactgcga atggctcatt aaatcagtta 120
tggttccttt ggtcgctcgc tcctctccta cttggataac tgtggtaatt ctagagctaa 180
tacatgccga cgggcgctga ccccttcgc ggggggatg cgtgcattta tcagatcaaa 240
aaccaacccg gtcagcccct ctccggcccc ggccgggggg cgggcgccgg cggctttggt 300
gactctagat aacctcgggc cgatcgcacg ccccccgtgg cggcgacgac ccattcgaac 360
gtctgcctat caactttcga tggtagtcgc cgtgcctacc atggtgacca cgggtgacgg 420
ggaatagggt tcgattccgg agagggagcc t 451

<210> 523
<211> 413
<212> DNA
<213> Homo sapiens

<400> 523
aattcggcac gagtagaggt taatggggtt gacctgagga actccagcca cgaagaagcc 60
atcacagccc tgaggcagac cccccacaag gtgcggctgg tggtgtatag agatgaagca 120
cactaccggg atgaggagaa cttggagatt ttccctgtgg atctgcagaa gaaagctggc 180
cggggcctgg gcctgagcat cgttgggaaa cgaaatggaa gcggagtgtt tatttctgac 240
atcgtgaaag gcggagccgc agacctggat gggagattga ttcagggaga tcagatctta 300
tctgtgaatg ggaggacat gagaaatgcc tcacaggaga cagtggccac catcctcaag 360
tgtgcacagg gacttgtgca gctagagatt ggaagactcc gagctggttc ctg 413

<210> 524
<211> 410
<212> DNA
<213> Homo sapiens

<400> 524
agacagctga acttaatcat ctaaagcaac aggtacaaca gctacaagtc ttgttgctac 60
aggcccatgg aggtaccctg cctggatcta taactgtgga accatcagag aatctacaat 120
ccctgatgga gaagaatcag tccctggtag aggagaatga aaaattaagt cgtggtctga 180
gcgaggcagc tggtcagaca gcccagatgt tggagaggat cattttgaca gagcaagcga 240
atgaaaaaat gaacgccaag ctagaagagc tcaggcagca tgcggcctgc aaactggatc 300
ttcaaaagct agtggagact ttggaagacc aggaattgaa agaaaatgta gagataattt 360
gtaacctgca gcaattgatt acccagttat cggatgaaac tgttgcttgc 410

<210> 525
<211> 474
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(474)
<223> n = A,T,C or G

<400> 525
tttaatccct tngaaatccc cgccnttttg aggatcccnc cnattcgaat tcggcacgag 60
attcgttgac aaaaacaatg accttttcta tcgagacctg tcccaagcca tgtggaaggg 120
cagccatgcc ctcatcaagt ctttgttccc cgaagggaat cccgccaaga tcaacctgaa 180
aaggcctcct acagcaggct cacagttcaa ggcatccgtg gccactctga tgaaaaacct 240
acagaccaag aacccaaact atattaggtg tatcaaaccg aatgataaaa aagcagcaca 300
catcttcaac gaggctctag tgtgtcatca gatcaagtac ctggggcttt tggagaacgt 360
tcgagtgcgg agggcaggct acgccttcag gcaggcctat gaaccttgcc tataaagata 420

caaaatgctt tgtnnactaa catggctnat tggaatggac cagcaggtct ggtg 474

<210> 526
<211> 406
<212> DNA
<213> Homo sapiens

<400> 526
gacaagtcgg gcgctgctgt ctgtgaattc tttttgaaag ctgcctgcgg caaaggggc 60
atgtgtccgt ttcgccacat cagtggtgag aagacagttg tgtgcaaaca ctggctgcgt 120
ggcctatgca agaaagggga ccagtgtgag ttcctgcatg agtatgacat gaccaagatg 180
cccgagtgct acttctactc caagttcggg gagtgcagca acaaggaatg tcccttcctg 240
cacatcgacc ccgagtccaa gatcaaggac tgtccttggt atgaccgtgg cttctgcaag 300
cacggtcccc tctgcaggca ccggcacaca cggagagtca tctgtgtgaa ttacctcgtg 360
ggattctgcc ggaggggccc tcgtgtaaat tcatgcccct cgattt 406

<210> 527
<211> 410
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(410)
<223> n = A,T,C or G

<400> 527
aattcggcac gagcccgcgg cgtgggcaag accagcctga tggagcgctt caccgacgac 60
accttctgcg aggcctgcaa gtccaccgtg ggtgttgact tcaaaatcaa aactgtagag 120
ctaagaggaa agaaaattat attacagatc tgggacacag caggtcagga gagattcaac 180
agcattacct cagcttatta cagaagtgcc aaggggatca tattagtata tgatatcact 240
aagaaggaga catttgatga tttgccgaaa tggatgaaga tgattgataa gtatgcttca 300
gaagatgcag agcttctctt anttggaaat aagttggact gtgaaacgga cagagaaatc 360
accaggcagc agggggaaaa gtttgcacag cagatcactg ggatgcggtt 410

<210> 528
<211> 385
<212> DNA
<213> Homo sapiens

<400> 528
ccagtcccca tgggctgaag gcaggttgag ttcttcccca ggtctgcgag cctcgaaggc 60
ttctttcaga cagcagaccc cttagaagcg caaggctgct ttctgacaaa gaatcaagtg 120
ttcctttcaa ccagccaagg gactggtttt ctcgctgacc ctttgacagc tccagccggt 180
ccctccgttc gaggtccctg acttcctgca acagactgag atggccttct gagcttttcc 240
agggctgacg accaccttct tgataccttc ccctctctcg ttctgaatcc gtgcccacca 300
gacggactct agctcttgtt gcccagactg ggtgcaatg gcgcaatctt ggctcaccat 360
aacctccgcc tcctgggttc aagcg 385

<210> 529
<211> 382
<212> DNA
<213> Homo sapiens

<400> 529
gggatgcctc cctctaagaa catgacactg agatgatcaa ggttctaaaa gggcgatcat 60

atcactctcc gaaaatgaaa ctgctcagac agaatgacaa ttaaattaat aacaaccaag 120
acactgccca gatttcatct ccgttcacag cccctcctgt gtgctgtatg atcaggttct 180
tgggggtggc tccagataca gcaaacagtc aggattaatc cacaagagtg agctgtcagc 240
atgaggttcc cctacagtgg agcttgccaa ggtccgtggc tcccagggca cccgttccag 300
ggctaacaga tgaagcatgg aaatgctgtg tggagtgagc tgacaccatt ctcaggagaa 360
aacagacaaa tcctctgccc ct 382

<210> 530
<211> 401
<212> DNA
<213> Homo sapiens

<400> 530
gaacagtcta aggtttgtag gacttgcgtt ccacctacca aagctaatcg agttagaagg 60
ctccaaactg aggtgtcatt tctcattacg gtggtgagag gacgggacca cacactgtga 120
agtcttcgtt cccacatccc acacttcatt cttgccgcct aagttgtcgc cgtgggacta 180
ttgaaagggt atcagcgata ttcatctttc ctataaatgg gatctgcttt ctacagtttc 240
ctgccagatg tgtaaagatt gcaagaattg aaggtatttc ttcaactgaa gacctttaca 300
gatactcaga tgactgaaat cctcttatca ctggctggac atggtggctc acgcctgtaa 360
tcccagcact ttgggaggct gaggcagaat catcattctg g 401

<210> 531
<211> 387
<212> DNA
<213> Homo sapiens

<400> 531
cccaggcctg gggcccggtg gaagtccatc tgacaacccc acccaggcca gggtcgaatc 60
tggaatggga gggtctggct tcagctatca gggcaccctc cccagggatt ggaaacggat 120
gacgggcctc taggcggtct tctgccacga gcagtttctc attactgtct gtggctaagt 180
cccctccctc ctttccaaaa atatattaca gtcacaccat aagcacaaac caggctccag 240
ggtcaccctg taggagcaaa ttccttgtag tccaaattgt atgagggcgt ggccacatca 300
gcacttagga gaggctctgc acaggtccac ctcagagccg accctccaga gcaactttc 360
tgttgtgaag aggctggttt tctgagt 387

<210> 532
<211> 400
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(400)
<223> n = A,T,C or G

<400> 532
gccttgtgcc cggccctgtt cacttcaggg cagcctcagg agtaccctgc tcaggcctca 60
tctgctagga tgagccgacc tgggagaagc aaacgcttgg gatattttgc acagacagct 120
tggcagctgg gtgatgggag gggctgggca acgtggcctg ggcacaggca agtaggggaa 180
gtgtctccca gtctgagatg cattgtctgt cccagcactt caccaacctt ggtgctcctg 240
gctagagacc actggggaag gtggtattgc catagtttct tggttcaggg actcaggagc 300
ctcagctggg gcccaagaag gggtctgtgt ggaaagcagg cacccaaagt ctggggaggt 360
cctggggatg ggcctgggaa caagccagca tggnaccttc 400

<210> 533
<211> 387

<212> DNA
<213> Homo sapiens

<400> 533
gccttgtgcc cggccctgtt cacttcaggg cagcctcagg agtaccctgc tcaggcctca 60
tctgctagga tgagccgacc tgggagaagc aaacgcttgg gatattttgc acagacagct 120
tggcagctgg gtgatgggag gggctgggca acgtggcctg ggcacaggca agtaggggaa 180
gtgtctccca gtctgagatg cattgtctgt cccagcactt caccaacctt ggtgctcctg 240
gctagagacc actggggaag gtggtattgc catagtttct tggttcaggg actcaggagc 300
ctcagctggg gcccaagaag ggtctgtgt ggaaagcagg cacccaaagt ctggggaggt 360
cctggggatg gcctgggaac agccagg 387

<210> 534
<211> 379
<212> DNA
<213> Homo sapiens

<400> 534
gcttcagaag ggcttatttt aaagggaatg gaaagcattt cagttgtagg aagttaacag 60
ctgtgccaag caaatgtgtt ttctcaagtt tcagaaaatg ctacagttga gagagatgca 120
aaaccaggtt tttagttaaa ctaggcagac ttttttgctt tgttttgttt ttttacttta 180
catacttcat gcaaatctca cttagccagt cttcagaagc cagtcttgaa tcagtgtcca 240
cagctgtagc agatcagtaa tttaactgct ttttagcttc tggaaatccc ttgactgggt 300
cagctgacta tgcagtcatt tatgagaaac atctgaacac catagttaca agacagcagt 360
atccattcaa caatccaaa 379

<210> 535
<211> 383
<212> DNA
<213> Homo sapiens

<400> 535
ccctttttgaa ggagatcagt tgctccctct ctctttctta gtgtttctca gcaagactat 60
ttaacattta aggccgtagg cattaagaat ccagggatct gtgttttaga gctgaatgtc 120
cttctccaag ccaagctcag agccaaagct ctcaacagct gaaatacctg cttgctctat 180
tctttttaac cagtgcagca gtgcttcctt ctaggataac agagctcttc tcatatattc 240
cattgactgt tgaaatctca gtaagggaaa cacttttcaa aatgtcttgt tatggaaagg 300
attgggccaa ataaatatat ttcctgttga aagtaacgtg tactttcact gaaggatagc 360
ttctctacta cagctactgt ttg 383

<210> 536
<211> 376
<212> DNA
<213> Homo sapiens

<400> 536
aagaggtctt gcacaattcc atcgaggcat ccctgcggtc caacaacctg gtgcccaggc 60
ccatcttttc ccagctgtac ctggaagctg agcagcagct tgccgctcta gaaggtggta 120
gccgagtgga caatgaggaa gaggaagaag agggagaagg agggctggaa acaaatggcc 180
ccccaacccc tttccagctg caccctctgc ctgaaggatg ctgtaccaca gacgggtttt 240
gccaggccgg gaaggacctg cgccttgtct ccatttccaa cgagcccatg gatgtccctg 300
cgggctttct cctcgtgggg gtcaagtccc ccagcctgcc ggaccatctc ctggtgtgcg 360
ccgttgacaa gaggtt 376

<210> 537
<211> 383

<212> DNA
<213> Homo sapiens

<400> 537
cctgcatgct ttaccagagc ccagcctcca gcctccacgg aaaatgtgtt ttggaatcaa 60
cactctttgc aaaggctcca cactgctttc tggtagcatt ggcctgggcg cccaggcact 120
cctttagaac ccacctgttc cccccaccca ccctagtggg aggaggagag ggttacactg 180
acagataccg gcagctctgc aacccgggaa caacgcagac aacatacaac tcgacagagt 240
cacagaaggt ggcgtccatc gcgcctggat ggtgactact gccctgcggg ctgctgggtg 300
ggtgaaacac acagggaaga agcacaaata cacacacaga tgtggctcag ggacatttga 360
atgcttcagt gtgtgaattt tta 383

<210> 538
<211> 375
<212> DNA
<213> Homo sapiens

<400> 538
atttctagag cagcagcagc agcagcagca acctcagtcc ccccagagac tcttggccgt 60
gatcctgtgg tttcagctgg cgctgtgctt cggccctgca cagctcacgg gcgggttcga 120
tgaccttcaa gtgtgtgctg accccggcat tcccgagaat ggcttcagga cccccagcgg 180
aggggttttc tttgaaggct ctgtagcccg atttcactgc caagacggat tcaagctgaa 240
gggcgctaca aagagactgt gtttgaagca ttttaatgga accctaggct ggatcccaag 300
tgataattcc atctgtgtgc aagaagattg ccgtatccct caaatcgaag atgctgagat 360
tcataacaag acata 375

<210> 539
<211> 420
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(420)
<223> n = A,T,C or G

<400> 539
ggtgcagtgc atctttgcag agcacccaga ggtgggggac agtgactcac agaggtgcct 60
ttggccttac cctgccagca gcagctcccc tgctcttgga atctccccca gcccccctgcc 120
tccctgtctc ctgagcacct gccccagctc agtgactctg gggtactgg ggagaccatg 180
atgttgctac caccttagtc agggttgggg gagcccccgg ccaggtgccc tccaggatcc 240
gcttccccac ccctcctggg aagcctggac cagcatccct tcttgggtgg atggagcctc 300
gtcctcatct ccagctacat cagtcattct ctgcagggca aaatctcctc ccctacccca 360
gctgtttctg cagaanggcc ctggctgtgt tggcangact tcggtgtcca aggtanatct 420

<210> 540
<211> 394
<212> DNA
<213> Homo sapiens

<400> 540
gttgggacca cagacacaca gactacaggt ctggaaatct ctccaggcac cctgctttgg 60
ccctctagaa tacagacagt tcctgctcta agaggccatc tgtgaggctc agtctcccaa 120
cacctctgat tcatcccccg tctcctggtg ggagacaacg tgctccttct ggacttcaaa 180
gccagcccca ctaccctcgg agtctgtgtg ctgggcgtgg acaagtctct gctttgtacc 240
cactctgtgg ccgtgaacct gtgacctata cttctcagcc ttgcttttct tatctgtaaa 300

atgggaatag tcactggatt tatcttaaag ctgaggtcac tggtgtctgg gcttgaaaga 360
gaaccggctc atagggaccc tcactcacga gccc 394

<210> 541
<211> 378
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(378)
<223> n = A,T,C or G

<400> 541
gtcagctccc gcgtgtctcc gctcgacagg gtgcttgggc aggtaagggt ccgctcagta 60
gcccaaccct ctctgtatgc agctccccaa attcagcgct gcgctcaggc atggcagcca 120
cccgttacgt gggggaggtg tgatatgcat ttattgaggt caaataaaat gctggaaatt 180
ggtgcctggt gacactgtca ggttggtggt taccctagca ggtcggccca gcccctgaac 240
gcttccatca ctgccgaaag ccctgtgagg aggcgcagag ctgagcattc cccgccgttg 300
cgtgggcccn nntntacctg ncgcntnttt cctctttgct gcagagccca ttgggtannn 360
gcggccatgg ncantcaa 378

<210> 542
<211> 382
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(382)
<223> n = A,T,C or G

<400> 542
gggaggtcct ccatgcgcag tcatgagtcg cttcaagttt atcgatattg gtatcaactt 60
gactgaccct atgttcagag gaatttatag gggggttcaa aagcatcaag tttatgatta 120
caggtggaaa tctacaagac agtaaagatg cactgcattt ggcacaaaca aatggtatcc 180
tcatatttct tttaccaaaa aaaaaatgaa ttaagtaatt ttgaagaagt ctttctgaaa 240
actgcttcag gtatgttttt cagtacagtt ggatgtcatc ctacaagatg tggtgaattt 300
gaaaagaata accctgatct ttacttaaag gagttgctaa atcttgctga aaacaataaa 360
gggaaagttg nggcaatagg aa 382

<210> 543
<211> 382
<212> DNA
<213> Homo sapiens

<400> 543
acagcatgtt gaagcctatc ccccagtcac agtgatagaa gttcttagtt aaagacgaga 60
atctgtttac tggcctcgag acattgcact gcacctggga agggcaggta gtccgtgtgc 120
tggtccttcc agctttccag ggcggaagtg gtgagggtgc gcgtttctga cttcgtggct 180
gctctctgga gactgctcag tatctttgca catgccaccc tgagatgcat gaccattgat 240
agcctggttt gcctgtaaga caaagcagcc ccaccatgca gtaggcgcca gctgtatacc 300
tcacttggta tcacctgcag ccttgccagc tgaggcagat gcacctgagt gtgagggcgg 360
caattgacct gttcctccat gt 382

<210> 544

<211> 378
<212> DNA
<213> Homo sapiens

<400> 544
gggcgggacg gtacagcacc cggaggaacc ttgattccct gccccgcaag cccagcaccg 60
gttttgccgc cttgtctcga agggtcaacc aggccatctc ctgcctcggg acggagagcg 120
ccctggaaaa ggcggagggg ccgaccttag tcacacaaga gcgatggcaa gattttcacc 180
caagccatct gacttggaac ccatggatta accaactgcc actggaggca aatccagaga 240
ccaagggagc agtttataca gaaacagaaa aattagccgg gcatggtggt gggcgcctgt 300
agtcccagct actcggaagg ctgaggcagg agaatggtgt gaacccagga ggcggaggtt 360
gcagtcagcc gagatcgc 378

<210> 545
<211> 402
<212> DNA
<213> Homo sapiens

<400> 545
cctggctgag aggcgttagg agtccggggg ttcgcccgcg gaggccgggg agcagccgac 60
catggagccc cagagggata tgcaacgaag catgttgttg aaggtctgga accaaggacg 120
ctgtacagat ttcgcctgaa ggtcaccagc ccctctgggg agtgtgagta cagcccactc 180
gtctcagtgt ctacaaccag agagcccata agtagtgaga cttgcaccgg gctgtcagtg 240
tgaatgatga agatttgctg gtccgaatac ttcaaggagg ccgtgttaag ggtgatgttc 300
ccaataagtt tggctttacc gctctgatgg ttgctgccag aaaggataca ccaggcttgt 360
gaaaatccta gtttctaatg gcacagacgt gaatctgaag aa 402

<210> 546
<211> 380
<212> DNA
<213> Homo sapiens

<400> 546
acgcctcgcc ggagtgactg aggcactgaa gccaacagca gccaccagga ccacattgct 60
ggggggcaag gaagcacagg ccctgggagt cccgggggc tccgctgaga cgacagaagc 120
cgagtggggt cctgcggcct ggcccgagga caaaagggcc cgccttaatg ttgcagcccc 180
ttgccaaccg cgccccacac attttgtggc cctcatggtg accgagcctg ggctacaagc 240
agaatgacca aggcccagga atacctggtc cacgtggccc cacactgcgc caacttccta 300
gtgccctctc agaacctaca cctgaccctg gccctgctgc gactggcagg cgctggggag 360
gaggccgctg ccattggagc 380

<210> 547
<211> 392
<212> DNA
<213> Homo sapiens

<400> 547
cgaagtgctc aaggacatcg agacggcctg caagctgctc aacatcaccg cagatcccat 60
ggactggagc cccagcaatg tgcagaagtg gctcctgtgg acagagcacc aataccggct 120
gccccccatg ggcaaggcct tccaggagct ggcgggcaag gagctgtgcg ccatgtcgga 180
ggagcagttc cgccagcgct cgcccctggg tggggatgtg ctgcacgccc acctggacat 240
ctggaagtca gcggcctgga tgaaagagcg gacttcacct ggggcgattc actactgtgc 300
ctcgaccagt gaggagagct ggaccgacag cgaggtggac tcatcatgct ccgggcagcc 360
catccacctg tggcagttcc tcaaggagtt gt 392

<210> 548

<211> 379
<212> DNA
<213> Homo sapiens

<400> 548
ggccacgtct tgagcctggg cgccagcagc ttcgtggagg aggagcacca gacctggtac 60
ttccttgtga acaccctgtg tctagctctg agccaagaaa cctacagaaa ctactttctg 120
ggagatgacg gtgagcctcc gtgtggcctc tgtgtggaac aagggcatga cggggccaca 180
gcagcgtggc aggacgggcc tggctgtgat gtcctggagc gagacaaagg ccacggaagc 240
ccctctacct ccgaagtgct cagaggccgc gagaagtgga tggtgctggc cagtccgtgg 300
ctaatactgg cctgctgccg gctgctgcgc tccctaaacc agacaggtgt gcagtgggct 360
caccggcctg acctcggca 379

<210> 549
<211> 464
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(464)
<223> n = A,T,C or G

<400> 549
tttggccnct tnaatcaagt ttgtgtcctt ttgcaggatc ccatcgattc gctcagcagg 60
aacactaagt ccatggaaaa caggccctgg gcccgctgat gtgcataatt ccacgtttgc 120
cccccatgta accaggatgg taaattacag gtgtcagata atcacgctct ggagtggcta 180
cttgaggatg cgatcgacca atttaagctc cgtctgacac atgatcaata gcccgtgatg 240
ctgcatggaa ttgcaggcac agcgtccaaa cctgcagagc agtggctccc agctgtggca 300
actttgcccc ccagaggaca tttggcaatg tctggatatg tttgcaattg tcacaactag 360
gagaggggga tgctattggc atctggcgag tgaggccaag gatgctgcta aacctcccat 420
gatgcacagg agaaagtccc cacacagacc attctgggcc aaat 464

<210> 550
<211> 458
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(458)
<223> n = A,T,C or G

<400> 550
cccctactng anactcttta aacaagctct tgttcttttt gcaggatccc atcgattcgc 60
ttagtctttg gcttttgctg acattttccc ctcttatctt ttctcctgac caagttctag 120
gtatttcata gggcagtcta ggtgagggtt ggaaccccaa tgagttgggc aacagaaacc 180
cagctcacac tggctgtcac tgtgggcaag ctgttcccct catctctaaa agtggagatg 240
agattagtgt atgagtctgg cttccattca actgtgtgtg aaaaaaaatt gtaaaatttt 300
ctttctggtt tacgcaagtt aaaagtttat ttctctcata tgaaaggagt caaggcagac 360
agaccaggat ggggagggag atgtctacag ggtcaaggac ccaggctctt atttcgctgc 420
tgacgtcctt agtatgaggc tttcaccttc caggatgg 458

<210> 551
<211> 400
<212> DNA

<213> Homo sapiens

<400> 551
ctggcttcct ggccaaagag cccgcgcagc gaggtggggt tgggggctgg gacccagctc 60
cgtgccccgc cacctggctc tctgggaaga atcggacctg tcaccctcga aggactggcc 120
gctaaataac ttcggtattg agagctgtgt gagcctcaaa gggagggccc agaccagctg 180
gagtctctac ccccagacag gataaagggc aggacttggg gtcataggag gaggcggcta 240
acatgaaaac aacttaggtt ggagagaagg aggggccaat ccaatctgca ccctccctgt 300
gtctgtcccg agtaggtgct gtccccctct cccttccttt gccaccgatt ggagggacac 360
tctggaaaac tcagttgaag aaagcggaga gtctgcgtgt 400

<210> 552
<211> 395
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(395)
<223> n = A,T,C or G

<400> 552
ataacatgtt caatttaaag aaaaaaatct gaagccactt aaaagctact gtttggcacc 60
gatacattat tccagtaatg aataatcatt aaagatatta ttctggatgc agttaccatg 120
cagtgatgtg aataaaatgc attagatgga aaattgtatt tcaagtaaat atatgcactg 180
gtagaaatgt tttaccaccc actaatatgt attaattcaa aaccaaatgc caactggagt 240
tcgcctacac gggtttgaat ggcaggcagt gatttggaag tgggaggaaa taggtttgga 300
tttggtcaaa tagactgaga agtgatagtg gggcggggg tttatgactc aaactttaac 360
aggtgagang actatgccat ggacagaaca ggcat 395

<210> 553
<211> 395
<212> DNA
<213> Homo sapiens

<400> 553
gatgagggtg tagactgtgg agtcgcataa ggacttgacc gccggcacag ggagctggag 60
caaacccaag actggctgag accattcatc atgcctgggt gagcacaatt taaatctgga 120
aatttctgct cagccagatt acagaactct aaatgacagt atttaactgc tgcctgagga 180
ccctggagtt tctcccatgt gacgcttccc gaatcaaggg agggatgtgc tctcctcttg 240
cctaggagga ggtcctggac tggtcttgtt ctggagagac tggacacttg gcatcctctc 300
ccaccatgaa ctgcccccca ccgcccatat aaatgttact gctgggggtg tgaacaagta 360
aacgtgtatt attacctccc ttgccagctg aggag 395

<210> 554
<211> 389
<212> DNA
<213> Homo sapiens

<400> 554
agcagctggg gaggagccaa agcctcggcg ctcacctaag ccgcagggag atacacccaa 60
ctgggagatg aggaaacagc aacccagaga ggagaactaa cccacacagg atcatttcgc 120
gaaggagcaa ggctgaagaa ccagacctgg actttcttag gcaagtaaat tctgattata 180
tcacggagac ttgctttgag aaatctgccc cttttcactg tgagatggcg tcattaacac 240
atctagttct ctcctaagca gccagcaaac atttattata cactagatat tatattggca 300
tttgagatga tacaaaggaa taaaatgggg caattagctc tagtaatttg gaggctcaac 360

ttacggatat tccaagttcc tttgaaacg 389

<210> 555
<211> 391
<212> DNA
<213> Homo sapiens

<400> 555
gttcagcccc tagtgtcttc tgtaaggccc ctaacatcag tagatggtca gttaacaagc 60
cctgcaacac catcccctga tgcaagcact tctctggaag actcttttgc tcatttacaa 120
ctcagtggag acaacacagc tgaaaggagt catagggggag aaggagaaga agatcatgaa 180
tcaccatctt caggcagggt accagcacca gacacctcca ttgaagaaac tgaatcagat 240
gccagtagtg atagtgagga tgtatctgca gttgttgcac agcactcctt gacccaacag 300
agacttttgg tttctaatgc aaaccagaca gtacccgatc gatcagatcg atcgggaact 360
gatcgatcag tagcaggggg tggaacaagt g 391

<210> 556
<211> 406
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(406)
<223> n = A,T,C or G

<400> 556
ataaaaaaag gcatttaagc aaggttggaa actgaaaaaa aaatctgact gtatattctg 60
taaaactata ataaacaaga ggaaatggca agtgtttcca actgagaggt tcccagttgt 120
aatctactgg cattctttaa taggaatatt taatagtcaa ttctcaccaa caagaatgga 180
cttcaaataa agccacattt tgaaacaata ggttgtttac agcagcatag caacggctat 240
aaagcaacaa ttcctaatcg tacttatctt gctggctatt caagaaaaag gtgtagaact 300
tccttactga gaggatcttg agttataatt tagtactaaa ttataagtaa tgnttgtgtg 360
gatacaaata tgacacaaaa aatgccttcc tttaaaaccc attata 406

<210> 557
<211> 386
<212> DNA
<213> Homo sapiens

<400> 557
agaggagtgg tttctggctg aatactatct taggctcaag gagaaacaaa ataaaaatta 60
gcttccaggc agcctgtttt taaagaaatg ggactaatgg gagaagctgt ttgtcactct 120
aagagcatcc aagccctggc ctgtctgtgc actcttggct cctggggaga tatatctgcc 180
ttctaagaag gcaggccagg tcttgggcac agacctgcat ttgttgacct tgcactccaa 240
ctatagtgcc ttgcaagtgc tcaacagtac atattggaat gaagtcccta tgagagccat 300
ttctggccat gttctatacc tcaaagtgag gctggcaggt acagagatga actgtcacat 360
gtgatacatt taagccactg gaaaaa 386

<210> 558
<211> 383
<212> DNA
<213> Homo sapiens

<400> 558
ctcgcagcag ctggggagga gccaaagcct cggcgctcac ctaagccgca gggagataca 60

cccaactggg agatgaggaa acagcaaccc agagaggaga actaacccac acaggatcat 120
ttcgtgaagg agcaaggctg aagaaccaga cctggacttt cttaggacaa acttactgca 180
gcttgaagga gccaaccatg gatttgaggc gtgtgaagga atatttctct ggctctacta 240
tcaataccaa atcattagct gctgtgctgt tttagagccc tgggagcgat ctatgtttaa 300
caccatctta ctaaccatta ttgctatggt ggtatacact gcctatgtct ttattccaat 360
ccacattcgc ctggcttggg aat 383

<210> 559
<211> 376
<212> DNA
<213> Homo sapiens

<400> 559
gacagcctgg ggaacgctgg ggccctgctg aatcccgggc tctccaggca cgaacagggg 60
catcccgcgt ccacgccgcg gggaggaggg tttcaccgtc tccagggact tggctcgagg 120
aaattaaact ctaatgagta gctcgagaaa tgttccggga tggtggatga gcgatcatcc 180
ttaaaagaaa atgctattct gggagctcca acctgcaatt aacctacaga aggaaccttt 240
tgagaggctg gtgcagcgct tcggggaggc agattaagaa cttagttggc ctggttgaag 300
ctctgtgagg agcaaagcag ccctctccag gtgaactgct tgactttacc acctgaagga 360
gtatttactg caagaa 376

<210> 560
<211> 380
<212> DNA
<213> Homo sapiens

<400> 560
gcagacagga ggctggacag aggggccgtg tgccaggctg caggggagaa gctggtggga 60
gggtgcttgg acagagtgtc gggttttgat ctgacccccct gggggctgtg aggtctgcag 120
aggaaatgca acctcccagg gctggagcct gccctgtcac ctgctcagca gtgtggccga 180
ctgagcatgt cacctctgaa ctgcagatcc tcctccctgc aaggggataa ccacagcccc 240
cccacaccca gggatcctgg gagattaact tcgaggatac agcagggcac gcagcctggt 300
acacgctcgg ggaagaatgt cagcaaacct tcctcctctt cccgtcctga ccctgcagtc 360
acaccctcca gggctatggc 380

<210> 561
<211> 404
<212> DNA
<213> Homo sapiens

<400> 561
cggtctccac gggagccacc ggtcctgaaa gcgcggagca tgctttgttt gcggaaacga 60
aagcgaatac ttctttccaa ggagacttag gaaagggcag acgctcccac tgcctcaggt 120
gttccctgga ggaccttcaa gtggccgccg tgtgggcggg ctagcgtccc gctgctgcgc 180
tggttccgga gcccttccct tgcctctccc agggtccttc tcccagcgtc ggaggaaggc 240
ccgccgtctg cgagtggagt gcgggtggtg ggaatccctg ggaggattac gaaatcctta 300
aagtgggatt taccaaacgc attcctttcc gctcacttcc gttcccgctt aacaaacgtg 360
ttggaaacgt gttgctactg aaaggaagtg gcgctgggct gcat 404

<210> 562
<211> 387
<212> DNA
<213> Homo sapiens

<400> 562
gcagcccttg actcctaagc cccttcctcc ttccattctg catcccctcc ccatccaacc 60

taaatgccac agctggggct gagctgtatt cctgtggagg gacctctgcc gtgcctctct 120
gaggtcaggc tgtgctgtgt gatgggcagg ctttgcccca gcccacccct ggcaaggtgc 180
acttgttttc tggtttgtac aaggtgtcct gggggcccgt ggcttccctg cagtgaggag 240
tgacttctcc ctctcttcca gtcctgtagg ggagacaaaa ccagattggg gggcccaagg 300
ggagcatgga aaaggccggc tcccctgtct ttccttggct gtcagagtca gggtaacaca 360
caccaagagt ggagtgcggc cagcaag 387

<210> 563
<211> 383
<212> DNA
<213> Homo sapiens

<400> 563
aaacgggatg gtttatagga gttcccattt ggttgaaagc tagaagccct aattgacctt 60
aaagtaacat gctatgggat ggtgggattg tcccctctga cagcacatat gaaatagttc 120
atctatataa tagaaacgca cacacacgaa agagaatctt ctgacttaaa tacaactttc 180
atggagttct tcaccactta tctgtctctg ttaaaatctg aaaatctagc ccatggctaa 240
aatctattat atgtgttctc catatttctt gtataagcca gtccccagca tctgatgttt 300
tgagaagtgc atggagtttc ctaaactttg cacagaagaa tatcctgggg ccgggcatgg 360
tggctcacgc ctgtaatccc agc 383

<210> 564
<211> 156
<212> DNA
<213> Homo sapiens

<400> 564
atgccaatta catatttatt tttccatacc tgattttttt caagtctgta ataaaaaaag 60
tataagttga gattaacata ggttattttt catgaagtat agcaaacgat ctagaatgtg 120
ataggagtgt ggtttccatt tctttttttt tttttt 156

<210> 565
<211> 465
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(465)
<223> n = A,T,C or G

<400> 565
tttggncnct taaacatttg ntgcctttnt gcaggatccc tngnttctna tncggcacga 60
ggttccctgt agctgcctac agatcaggcc tctccaaggc cccctcccga aagaagaagg 120
gcagcaaagg ccccgtgatc aaaatcaccg aaatgtcaga gaagtacttc tcgcaggagt 180
cggaggtctc agagtaaggc ggctggaccc caggaacccc agggcactcc actgcagcag 240
gagggactta agctagactc aagaaagcag cttggagcct ctaggttgag aagagaggca 300
aaaacctgat attgaactga gagaggggtt caaaactgac tgtgttttgt gggctgccag 360
ggtgggagag gagcatcacc agctcctcag agccactccg ctccatatca agtatctcac 420
aagtcccatc cttccacctt ctgggcagaa ggtttctga tgggg 465

<210> 566
<211> 450
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(450)
<223> n = A,T,C or G

<400> 566
tgaanoccta nacaagctnt tgntctntnt gcangagccc ttcgattntt ttctnccccc 60
agagcttagc aagacatgat cagcctggat tacagctgcc ctcacgtaac tgggttaaag 120
tgttggccta cttaggcccc tcctgcagtg gcttccttca aagctgatga ggccgattag 180
ggtgctattt ctgagatcta gtcgtgtacc cagaagcctg agggcggtcc tcccctgact 240
agaaagacaa tgactaaggc tggacagcca agggcagagt cagatttgcc cataggagag 300
cactgccgtc agaactcatg tatgcttgta aaagaaccaa ataatatcaa ggctaagtcc 360
ctggattttg aacttcaaaa accaaaccaa ccaatcagtt ttcagggata ggcctagtcc 420
tacacctttg ccatcttcag aacttaaaga 450

<210> 567
<211> 442
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(442)
<223> n = A,T,C or G

<400> 567
tggacccnnt gaagcccttg tctttttgca ggatcccatc gattcgtggg tactttatac 60
aaagaaaatt cagccctttc tgctgtgtct tcaaattatg cagggtagga taatctgatg 120
ctaacttttt ttttctcttt ggttcttgaa tagcttagtt tctttaataa caagtcaaac 180
tttattacaa caataactga agttattctt ttaggttctc gtgaaattct cactgaaagc 240
cacattctta gcctaaggca tttcatcttt tatgatataa aatgatggct atcaaatgat 300
tttccataca ttgtactgat caagttatac acccaggggt atatacactt tcttcatgtt 360
tcttctttgt atatttgggg actgtatcgt catagatgta catattgtgc ggtagggcta 420
tgaggcatgt tacaggaatg ta 442

<210> 568
<211> 442
<212> DNA
<213> Homo sapiens

<400> 568
accctttgac tttctgcagg aacccatcga ttcgctggtc agttcagtcc ctatgaatgt 60
ctcttctaca ggaggctacc ctgcccctgc taccctggga gaagcctcag ctttctgggc 120
agagtttgtc tccctgtcat ttatactctc aggctttata catttacaca gtaagttctc 180
cctcctggag ggttaaaagg aataatttca acagggtgaa ggcctggcac ggtggctcac 240
aactgtaatc caaggacttt gggaggctga ggtgggtgga tcacctgagg tcaggaattt 300
gagaccagcc tggccaactt ggtgaaaccc tgtctctact aaaaacaaaa attagccagg 360
tgaggtggca cacacctata gccccagcta ctgggggagg ctgaggcagg agaattgctt 420
gaacctggga ggcagaggtt ac 442

<210> 569
<211> 424
<212> DNA
<213> Homo sapiens

<400> 569

aagatggtaa gctagatttg acaataccac atgcttcaaa atttaggctt gggaattgaa 60
tcttttgtta tcatatgtgg atatataaaa acacattttt aactcttaaa tgtattacta 120
ctgtaataat tagataaatt tggtctcatc ctattacatc caaattgcca cttaaatgct 180
ggttttaaag taagaagagc aaggatcttc ctggcaacta taatagtcaa agaaaaccag 240
cagtgactga agaaaaaaat gaactgctga gatgaaacta tcactgtaac tcccagcaaa 300
tgtcaatgct atccttatct tatacctgtg attctggaag ctttcagagt ttctctttga 360
gacttgctcc agtaaccaga tctaaacttt tccttcctct ccagttagcc agtcatgctc 420
taga 424

<210> 570
<211> 394
<212> DNA
<213> Homo sapiens

<400> 570
gctctgcggc gccgcggtcc cggcaccccg ggccctgtgg ctcggccatc gtattcctcc 60
tttactcagg gggacagctg gggtgaaggc gaagtcgacg aggaggaggg atgcgaccaa 120
gtggcccgcg acctgcgggc ggagttctcg gctggggcgt ggtcagagcc cagaaagcgc 180
tcggtgctcc cgccggacgg gaacgggtcg cccgttctgc ccgataagcg caatggtatc 240
tttcccgcgg ccgcgggcag cagagcccag cctcggcggt ggccggtcca ggcctctcta 300
ttctctgctc gctgctcttc gccattcttc tcgccttcct cctcgccatc gcctacttga 360
tcgttaaaga gttgcatgct tagaaattga aaaa 394

<210> 571
<211> 398
<212> DNA
<213> Homo sapiens

<400> 571
tccatctctt cttcctagta ttcatgtcta ccaaatgctt tctttggctt cctctgaaag 60
aagccagttt cagcaagtga gtttgtgatt ctttctcctt tcaggtacct gtttcccagg 120
caactactga tcaggcattt ctggacccca aaacaacaaa ctgatttctt agatatctat 180
catgctttcc ggaagcagtc ccacccagaa attattagtt atttagaaaa ggtcatccct 240
ctcatttctg atgcaggact ccggtggcgt ctgacagatc tgtgcaccaa ggtattcctg 300
cagttaaccc ttcctacaaa tgtggaatct tgttagattc agtgtgcact aaactaggta 360
agaggagtag tcaggacttt cctaacatct accaatct 398

<210> 572
<211> 387
<212> DNA
<213> Homo sapiens

<400> 572
gttgccatac tcttgcatac acaatcggtt atctagtttt tgattgtttg tgtgtatggt 60
gtgtgctgtc tctctgacca gatttcaggt tcctgaggcg agcctgcagc tcatactgct 120
catctgtcct ctcctgtggt gggtgctcag ggcctctcac tgttagttac tccctccttt 180
ctgcccagtt ctgcactcaa ctagtagaag cagccatcct ttccccaagc aggaaattgt 240
agtggtcgcc cttaagagca gtgtgagggc agaagattaa gggaggggaa gagtccctgg 300
aactggaaga aggtaaatac tttgccttga gagggcgccg aatcatttta ccaaaatagt 360
aaatggaaaa agtgtcaaag ggtgggg 387

<210> 573
<211> 383
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(383)
<223> n = A,T,C or G

<400> 573
acaagagccc ctggggagta ggtggtggcc tgtgccgtca tccccatttc aaagcaggga 60
gctgaggtcc tgggagggga aagtgcttgc ctgaggtccc actgtgttag tgggtgggca 120
ggactggaac tcggttctcc aacagcccag agctcactct tttacaccca naggtggagc 180
aggtggctta gggggtggta tgtacttcac aagccaattc ccttcagcca ggagctcctg 240
ggtgcatttc cgtgtcagaa acagtaccga gtcccacccc ctctggaggc acagctgttg 300
cgtcaggcaa ggtcacctgc atttatttat tgagcagcaa tgctgtgtna ggcccaggga 360
ccganccccct ctcctgttnc cta 383

<210> 574
<211> 381
<212> DNA
<213> Homo sapiens

<400> 574
ccaaagcaaa tgtattttta aaggcaaatg aggtttatta agaagagaga aatggcagat 60
gtctccgaga ctgaagtctc ttgatcttga gagtagggtc tggtctctgt ctctttactc 120
tagcacattc ttggtctttc cttttcaaga tgagtgccct tttgtgcttt gcaccccata 180
ggtggttatt aaatacatgt tgattggttg gttggctgtt tgtctggtta gaagtggaga 240
gtcagagcta ggtggaaata gcacttgcaa ccattgcagc tgctgttgga atgacacagg 300
caagagatca cttttgggcc aggcgcggtg gctcatgcct gcaattccag cactttggga 360
ggccgaggtg ggcagatcac a 381

<210> 575
<211> 375
<212> DNA
<213> Homo sapiens

<400> 575
ccaaagcaaa tgtattttta aaggcaaatg aggtttatta agaagagaga aatggcagat 60
gtctccgaga ctgaagtctc ttgatcttga gagtagggtc tggtctctgt ctctttactc 120
tagcacattc ttggtctttc cttttcaaga tgagtgccct tttgtgcttt gcaccccata 180
ggtggttatt aaatacatgt tgattggttg gttggctgtt tgtctggtta gaagtggaga 240
gtcagagcta ggtggaaata gcacttgcaa ccattgcagc tgctgttgga atgacacagg 300
caagagatca cttttgggcc aggcgcggtg gctcatgcct gcaattccag cactttggga 360
ggccgaggtg ggcag 375

<210> 576
<211> 379
<212> DNA
<213> Homo sapiens

<400> 576
tggattgtag gtgagcctca gatcttttgt tttttagtga gaggtggacc ttgcaggaga 60
gagccctccc ttctctgttc tgcggctgcc gcactcccca ttgctgattc ccattgcagg 120
gtacttgcat ggtcacccca tttgccttac tccgtggact cttttctggg cattgagtag 180
caggctcagg gtctgagcac agggagctcc ctggagagaa tgttgcatct ctcacttccc 240
atcccgccac cccgtgtgta gccccctgcc tggattcact tcccctggaa agtttctgcc 300
catgaagccc caaaggcaga ggagagtgaa gagtgaatgc cacagctggg tctaggggct 360
ctgccaaaga tgcccacag 379

<210> 577
<211> 384
<212> DNA
<213> Homo sapiens

<400> 577
atccactcct ctgcagggaa tatggaaatc tttccctcat ttatggctaa ttaggcagta 60
tagcctcatt aatcatggga tgacagtaca gtgtggtgga aagaggatgc tgtggagcca 120
cacaaacagg gttcagagcc cagctttcct gccctaatgg tggcactgtg caggtcagcc 180
ctgttgtctg taaaatgggt gtaacacaga ctaatgtgca gggtgggtgc agggttagag 240
aaaacttaca tgacaggcaa agcagcgtac tttgctcata gaactcaata aactgttcct 300
ctgtaattat tattaataaa cattattgca gagtatgggc acagtggctc atacctgtaa 360
tctcaacatt ttgggaggcc gagg 384

<210> 578
<211> 383
<212> DNA
<213> Homo sapiens

<400> 578
gggaggagga tcccgtcctc atgggtgcgg gagcaacgtg gcgtgggagt gatcgttctg 60
ggggagaggg ggcagaagag agcgcgaggc gagcccgggg ccaggggcgc agggaatagt 120
ggctttggag ctagcgctct gccgaccaga cagtaggaca catgctggtt tcgcctactg 180
agatggcttc ccacccgtaa cctgcttgga gattcttgac actgcctgcc cctctgacat 240
cgctgccctg agatggctct atagagccag aggactggac aggacctgcc tcccgctcgt 300
ttggttccgg cctcaggctt aggacaatgg ggtgttccta gcacccgagc gggcctcctg 360
gtcacagtgc gccttttagg tgg 383

<210> 579
<211> 387
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(387)
<223> n = A,T,C or G

<400> 579
gccgctcccc agcaggacag ggtaaccgcc gaggtggggg gcttcttgtc cgtcccagcc 60
cccccaactc aggccctctc gctgcccctg gcgaccaccg cgtgcgccct tccccagggc 120
gggcgcagtc ctggacgcct ccgccgagcg tgactgcgtg cattttctct cctttccctt 180
cccaacctgc ggagagaaga cagccccaga gccgtgtctc catcctctgc tgatgcctgc 240
tgtctttatg ttggcctcgt cgnccgcact gcagtgtggc aggggcgtcc ctcgtttccc 300
gcggactgag gtgggcgccg ggcattcagt aaacgaagaa accaaagcgg agaaggttgg 360
gaatcaaacg tctgtcatac ctgccac 387

<210> 580
<211> 401
<212> DNA
<213> Homo sapiens

<400> 580
tcagatccga ggacatgttg acgtcgtccg agagtcttaa aatcctgctg tggccggatt 60
ccagactcgt gggggaaagg ctggatctta atgcaagtca tgaacttgaa tgtgccgatg 120
aggcctggca ttcttgtcca gagacagagt aaggaagtgt tggccacacc cttagaaaac 180

agaagggaca tggaggcaga agaggagaac caaataaatg agaagcaaga gcctgagaat 240
gctggagaaa ctggtcaaga agaggatgat ggtttgcaga aaatacacac atctgtcact 300
agaactcctt cagttgttga aagccaaaaa agacctttaa aaggagtgac attttctagg 360
gaggtaattg ttgtggatct tgggaatgaa tccctacccct c 401

<210> 581
<211> 382
<212> DNA
<213> Homo sapiens

<400> 581
ccaccccga ttcctgacca tgccccctat cttgtgattt cagacttggg agagcaaaag 60
ggaggggaag aaaataagag taatgggggg aggaaggaat gcatgggtct gccccttaga 120
gcaagtctga aaccagaatc aagagtcctc ctccccagtg ggcctgtgtg ggggaagagg 180
ggcagcctgc cccaggggtg caagaggaca gcaattcagc ttccaggcca aagcagttta 240
gacaaggtgt gcccatcagg actccctcca ggccctggct gtttaccatg tcactgccta 300
ctgtgacttc atgccctttt gggataaaga acacaaaacg catggaacaa ctatccatgg 360
ctcttagcca gaaatgtctt gc 382

<210> 582
<211> 381
<212> DNA
<213> Homo sapiens

<400> 582
cagcctcctg catcatcctc gtcttcatct tcctgcggta ccccctcacc gactactaag 60
gcccgccagg cacggctgct ggcggagaca agcactgaga catgtttatt ctcatggtcc 120
ctgaaacgca ggatcccatg aggttggggc agggcagggc ttcttgtcct ggggccccct 180
tgagctgtga actgggcagc aaggccatca gaagctgagt acagcaaggg gcagtgagct 240
tggccctcag tccacccccct ccgcctcctg gcctccgccc tgcctgtgtc tggggcctgg 300
gggcttctcc cctcgctgct gcaccctggc ttccagcgtc tgtgtccctg cctacgtgcc 360
ccttccaggc tcctggggcc c 381

<210> 583
<211> 387
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(387)
<223> n = A,T,C or G

<400> 583
gcgagactct gtctcgaaaa aaaaaatcac caggctggct tacaaaggat ggggtttttt 60
tactgtcgtt tccagagatg tgattctgga ggtcaaggca gggcccaggg acacacaggt 120
ttaataggcc catgggggtt ctgtgcagtg cctcgggtca cacctggaga accgttgctc 180
tgattggtat ttctccaccc gggctgtgcg ttagaatcaa gaagaagcgt tgagatattg 240
ggatgcctgg gtcctgctcc catgctgggc ttctggttta cttgggatga gattgcatcc 300
agacagagtt ttaaaagttt cccggttgag tttaatgtac agttgaagtt gagacatgaa 360
tctctgcatg taggggaaat tntgtgt 387

<210> 584
<211> 387
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(387)
<223> n = A,T,C or G

<400> 584
attcccaatt tcacaaattc ctcatgtctt tgagatttga tcagtttgtg aatattttat 60
gctttgatga tatagtgaga atgcatcact tgcaaaaacg atctcaaaag tgtcagcctt 120
agataaacgt tcagcattaa aaacgcctat tatttcattt actagcattt taggatccag 180
aagaattcca ccagattgca tgagttagat tgggaaatgg gagtgggaga taatattgga 240
ggtatctatt ttaagtcagg ggctttacta gccgatttag ttctcacaat aaccatgtgg 300
agaagctgtg acatttttaa tttacaacct ttctggggct cagacataaa gttacctatc 360
caagggtgca gttgggtagt ggnggga 387

<210> 585
<211> 391
<212> DNA
<213> Homo sapiens

<400> 585
ggaaaatctg ttttataatt ccctaaagct acaattacat gcaaactgga ttcttgaaat 60
aaaacacaat tgaatttaaa tgacatctac atgaaaccca ataactcgat tacattgttt 120
taatgttctt aatgtggtca aaggcagccc atggctttat catcaattag gtaagctttt 180
gagggaaatt ctgaaaaatg gcaagtcctc acgtgtggac tgacaactga gcaatttgcc 240
tgctgtgctt cagaaagaga ggccagctct gtgaggtgct gtcgaaatga ctgaaaacca 300
cccactgcgg atttctactt ccctctatga aaaccagcct tctcagggat tatcaccgcc 360
aataagaagg gaaaattgcc tgcacagttg g 391

<210> 586
<211> 392
<212> DNA
<213> Homo sapiens

<400> 586
cccagtccac aatcacataa ggagtttgaa gaattgttaa atgtaagaac tagccccaaa 60
gtccaaataa ctgcatcagg ggagttggga aaattgtttt tcaaaaagat tttgtggtgc 120
agtacttatt ttgaattaga caaaaattaa gaaagacatg gtaatttttg ctagtgaaat 180
tctaaaatgt atacataaaa gtgttgaatt tttaataact tgatttccac atctgaatta 240
ttcctatgct gtttaaaaca ggtcatttcg gtgactttct caagggctgt gaaggctttg 300
tacatagata actagaccaa aaccaacaag ctgtagtatg aaatgtactg tcactctcat 360
tatccagata tttatttaca actatttaat ga 392

<210> 587
<211> 386
<212> DNA
<213> Homo sapiens

<400> 587
ctttgctgtg tgagtgcagc tatcatctat ctgtagcaac aggaaagtaa tgagggcgac 60
agtggggcac ttgctttgat tccctctttc ccatgccctg tcttaatata cttctctgca 120
gctgctttcc tgcagcttaa cttgctctca gattgagcac tttcaagctt tttgtgtatt 180
tctgtctttg gcaggatttg gcataggaat tggtgcatgg aggagaggag tgtatgataa 240
aggatccatg cagtccttcc tttattacac atatagtctg gcttgctgtg gaccaaatta 300
atattctcct cccatcagac tacaaaaaaa ttggactacc acgctacaag tgtgtctccc 360
ccattccacc tcctgatccc tcccca 386

<210> 588
<211> 376
<212> DNA
<213> Homo sapiens

<400> 588
ggtttacttt acacattttt gattcagtcc ttaacccccct gctatttttt ccttctcagc 60
ttctctgagc tgtccttcct ttccatctca acaaattcct tgtccacacc aaggttaatt 120
ttgccccatc tgtggttagt taactcacaa atgatctttt acagcttctt ccccctggag 180
ctgctggtgt tttttatttt cagcctttaa aaaaatgtta cagagtggag tgctctgccc 240
actccccacc ccacaacctg ctgtggcacc tctggatggg cagagggtct tgtgtggtct 300
gtctcacctc ctgtggactc gtgactcagg ctgtcccctc aactgatcaa ccaagacaat 360
cttttttcc tgtcaa 376

<210> 589
<211> 376
<212> DNA
<213> Homo sapiens

<400> 589
ggctgctcca gcagcttgga ttcagagtga gaaggcataa aggagaatcc ccagctgact 60
tgtgcagtgg ttaattgaaa ttattcaggc aagagatgat ggtgtcttgg accaggggat 120
gaggaaggct acaaaatgtg tctacctgta ttctgtgagg agaacgtgtt ccctggtttt 180
agatactgtg aagatggatc aggagagagt ttatctagac tgttggggaa gggtgttgcg 240
attccttcag ctacacagga ttgaaaggag acatttctga aggggaaaaa ggaaatgaaa 300
gaaaagatgt ttcagattga ggatatgctg tgtggtgaac ttgttcttca ctctgtaggg 360
ttcacaaatg actctt 376

<210> 590
<211> 392
<212> DNA
<213> Homo sapiens

<400> 590
tccgttggac cttctctgac ttcagggtga gtcgtgaggt aggagaggcc cgggtttagc 60
gatgagacca gtatgaaacg gagggccacg ggagggcccg aggggagcag gcgacgctca 120
gctatgggtt accttctctt tgggaccgat gggtgctggg gaggatcccc catttgcatt 180
ttagccgcac cccctgagcc gtctccgttc gaccctggga tcctccagat cccagattct 240
taggaaggac cttggagatc agctggacca gcccctgact tgcctggttt cggaagcgga 300
aacccagcgg tgcccttagc tgtcaaggat gctgtgggaa gagtggagcc tcgaacccga 360
gacgctagac ccaatttggt gcccatggga gg 392

<210> 591
<211> 387
<212> DNA
<213> Homo sapiens

<400> 591
acagcactgc aggagtcggc agccagtgtg gagcagtgga agaggcagtt ctccatctgc 60
cgtgatgaga atgaccggct ccgcaacaag attgatgagc tggaagaaca atgcagtgag 120
atcaacagag agaaggagaa gaacacgcag ctgaagagga ggatcgagga gctggaggca 180
gagctccgag aaaaggagac agagctgaaa gatctccgaa aacaaagtga atcatacctc 240
agctcatgtc agagtgcgaa tatgtctctg agaagctaga ggcggcagag agagacaatc 300
aaaacctgga agacaaagtg cgttccttaa agacagacat tgaggagagc aaataccgac 360
agcgcccctg aaggtggagt tgaagac 387

<210> 592
<211> 380
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(380)
<223> n = A,T,C or G

<400> 592
aatcccttct gcagcacctg gatcgctttt ccgagcttct ggcggtctca agcactacct 60
acgtcagcac ctgggacccc gccaccgtgc gccgggcctt gcagtgggcg cgctacctgc 120
gccacatcca tcggcccatt tgcgtcattg cccatttgcg tcattgnccc aaacctttnt 180
ttgcccanaa tcngtgcttt atgcnanaaa tntgtnantg gnttnnatna ttanaaagac 240
canttngcnn gnnntanttn tttngtaagt nnncgntctt ctttccantt ttaaatgcct 300
tnttanatct gngtannnta anttnncant nntantatnt tgnnanaaaa ggagttnnac 360
ngaannnaan tccccataat 380

<210> 593
<211> 458
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(458)
<223> n = A,T,C or G

<400> 593
tgccccctnt tgaaagcnct tggtcttttt gcaggaaccc atcgattcgt ccggaagtcc 60
aacaggggag ggagagtgga ggaaggaggc gtctcaacat ctggaaccat atttccatca 120
gatgtgtttc tcaagcactc tgccactcct ttctacctct cctgcgtttg atctgaggac 180
ggcccgttcc acaggaacac aaaggcacag aagatgaagt aacttgccca cggccacacg 240
gttgacacca tgaaggctga acaaaggata tctgggggca aaatctgacc catgggctgc 300
ccattgccac ctctgggcag ccctccttga tggtgtggag tccgcggtcc gcattggtta 360
acctaactgt gcttcctcag atcagtctgg aattaattat tgaattgtat gcattttcaa 420
tgccatcctc aagctaacag ccaactatgc gggggaat 458

<210> 594
<211> 462
<212> DNA
<213> Homo sapiens

<400> 594
tttatacaag ctcttgttct ttttgcagga tcccatcgat tcgaaaacct aaaagaaagc 60
gaatgaattt gacacctgtt ggttggatga cagaccacac agagggagag tgaccaggct 120
ttgcttgtgg agcgggcatc cctgcctagc tatctccttc atgtgcaagg acagtataag 180
tagtattttg catgtgagta aacacacctg cgcagccctg gctgaggtca ctaggctggc 240
cagaggcagg acaggcagtc ttgaatttcc tctaggggag gcctgcagtt ttccccacca 300
accccttttc acatgctcca aagatgtagt agtgtctgct gttttggatc gaaaatcacc 360
ttgagtggag gaagtgactt cactgggtct ctggaggctc tcggagcttg agtggctctg 420
cccaccctga atcatgcacc cataaatgca ggtatgggtg ga 462

<210> 595
<211> 437

<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(437)
<223> n = A,T,C or G

<400> 595
tagaccctcc ctngnncntt ttgcaggatc ccatcgattc gcttctttcc aaaacccttc 60
tttgttctag atagctgtgc tgttagtgac tgccctagcc ctgcttttgt gctgacagag 120
gctgccccag caggcctctt ccctcctttc agagggaact ttctgttggg tgcagctgac 180
tctggctaga ggccttttct ctcctgcttg cctgagtcct ctcaagactc tgtcactctg 240
ctgtgcactg ctccgttccc gttccacatg cctccctgca aagaacccca gtaaggagaa 300
acttacaaca atggggcagg cgctgatcag gaccagcaag attcagagtc agagcactga 360
ggcagggctt gaaatgtctg acatcatcac acagtcccac ttccccgtgg ctcctccaga 420
tctttagatg tttaggt 437

<210> 596
<211> 425
<212> DNA
<213> Homo sapiens

<400> 596
ccccagaact ggagcacaat aagttaaatc atttacctgt ctcacttctt cttggcgtgc 60
ttaaaagcaa aaatgattcg ctacttcctg tccttcagtc cgggcatttg gggtgccact 120
gaagactggg gttatctgct gaggtttggg tgtcttgcag gaagtatctc attgcagttg 180
attttgatga aaccaaacag taactagggt ccatgcagac cgtgactccc tgattacatc 240
tagccatgcc ctacttattt cagagagaaa gagaggggga ataaaggcag tattgccaca 300
ctgattagaa gcacattcat tccactttga tgttgaatat ttttgaccga tacatgcttg 360
agtatctttt taatagagca catgaaggaa gaagcacaca atatagagaa ggaattgaga 420
atgcc 425

<210> 597
<211> 387
<212> DNA
<213> Homo sapiens

<400> 597
cattcttaag gaatacactt atcttttttc tttaaaaaaa gtttttcttc tgctatttaa 60
aaaaatgttt ctgagtataa ccaaaaatag gtatttgttt ccttggtttt cttttcttct 120
tctttaacta agtagttcaa agaacaacac aacagaaaag agtaacaaaa agtcacaaga 180
acataaccct taacacacct tgtataaaaa tagcttccgg ccatggctgc tgacagtgga 240
tgctcccctg tcgaggggtg gatcaggctg gctgggtgcc tgaggctggg gcgcctctgc 300
aggggacacc cacacccccct caccctccca cacacccatc ccacacatgg tacattccaa 360
gggcccgggc ctgcaggaca ggaagca 387

<210> 598
<211> 401
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(401)
<223> n = A,T,C or G

<400> 598
aatatgtcct ccatacattt tatcgaacat tattaattaa taaacaacag ataaataaca 60
acagtgcttt gtttgattaa attatatata tgattatatt tcttcagtga aattgttggt 120
tatgcatttc ttacaaataa ttcacaaata ttaatgaatg tctgtgttgc agcaggcatt 180
ttgctcacca cggtggacct gggggtatgt gaaataggca ccatctctgc tctcacaaat 240
ttaatacgtg caggctgctg gattggacta aagtcctgag gagaactata acaatctctt 300
agagggaaca gtgattaaac agggatcaat tgtgccaccc atatagcctt cctacttact 360
gatcaagaat gataagcaga ccttagcaag ngccaatcaa c 401

<210> 599
<211> 375
<212> DNA
<213> Homo sapiens

<400> 599
ggcaggggga ggtgagggag gtttttttgct ttctttgctt tttattttta ttttttaata 60
tggctgggaa tgcagaaatt ttaaaaatgg atacatttga gtgtgttaaa agtaaaaact 120
tctcttggac aaaacataaa ctgctaaccg caacgggga gaagatattt gccgcacatg 180
taaataacag agactgttct acagcaccag gaggaattct gactgccaat gggtgaagac 240
gaggcaccca gggaaataaa ggggcaggga tggggcagcc ctccacgcag aggagacgcc 300
tgagaatgcg cacattcact ggttgtctat ctctagacaa cagcagatgc ctcttcacac 360
caatcgatgg caccc 375

<210> 600
<211> 398
<212> DNA
<213> Homo sapiens

<400> 600
gccgccgccg cgctcgctcc ccgcgctggc ttcaggagcg acccggccga aatgaagttg 60
aaaatagcac aggagcccac tatcactgtg tgaacatttt gtgaatgaag acatgtatga 120
aaggatgttt ggaggcttca agaaacgaaa gccgagagtc tagctagacc agagccatcc 180
agcccaggag cgatggccac gtgtggccgc tggacaagag agacgtggcc agtccaaact 240
gtgcagtgcg gggcagtgga agccgttgga gggcctcagg caggaacaca aggtgtcgtg 300
gcagaaagga agaaggggcc gggcacggtg gcccacaccc atcatcccag cactttggga 360
gggaggccaa ggcaggagga tcgcttcaat ccaggagt 398

<210> 601
<211> 389
<212> DNA
<213> Homo sapiens

<400> 601
aaaatggggt gccagtgtcc tcagactaga atgttctagt atcttggggt aggaatgaga 60
gaatataagc ctgaatgcca gcattatggg agccaaggag agttgggatg ccccattcaa 120
tatatagact ttcattcaag acccatcttc agccaggcac gatggctcac acctgtaatc 180
ccaacacttt gggaagttgg aagattactt gagcccagga gttcgagact acctgggcaa 240
tgtggtgaga cctcatctct acaaaaaaaa atttaaaaga attagtcggg catagtagta 300
catgcctctt gtcccagcta ctgagcaggc tgaggtggga ggatcacttg agcccaggaa 360
atcaaggctg cagtgagcta tgatggcat 389

<210> 602
<211> 243
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(243)
<223> n = A,T,C or G

<400> 602
gagagagaga gagagagaga gagagagaga gagagagaga gagagagaga gagagagaga 60
gagagagaga gagagagaga gagagagaga gagagagaga gagagagaga gagagagaga 120
gagagagagn ggcncncccc nngcgnnnnn ttntctctct ctcacccccc ccncnctctn 180
tntttttttnt cnntctctcn ctctntgtgc gcncnnttng gngnnccccct ttttttttt 240
ttt 243

<210> 603
<211> 429
<212> DNA
<213> Homo sapiens

<400> 603
cttaaaagaa aatgctattc tgggagctcc aacctgcaat taacctacag aaggaacctt 60
ttgagaggct ggtgcagcgc ttcggggagg cagattaaga actgacctag aaacagaagt 120
gaagtttgaa gtctgctctc tgcaaagagg gtgggagtgg gtggagaaga ggcttgtttt 180
aaaagccaaa aacagaaagt aaaaagaaat gggaaagtaa aaccaaagca gcaagtgact 240
ctcttctgat gtgcactttt catttttctc ccccacattt cagtgttaga aagaaaacga 300
gaggagctag ggaaagaagg agttggggac agaagactaa gatttcaacg tgaaattcca 360
tttacaaagg ctttactgca aacaatagct aatttagtcc tgtaaacatg catttatcat 420
acattttaa 429

<210> 604
<211> 469
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(469)
<223> n = A,T,C or G

<400> 604
cccccctttg aancccnccg naaacttctt anacaagccc ttggtctttt tgcaggatcc 60
catcgattcg ggcaagccca ccaaggggcc tatggctgca ggggccatgg gtacggggct 120
tgctcaggag agggaggtgg gtgctggagt cttctgagcc tcactttgcc ctttggcagg 180
ctcctgggaa gcagccacag aaatgaagcc tgttccccag gagccccagg gatggggaca 240
gaccccgtcc tccctttgag gagctcccag gttagaggag aaggcagctc tgtggacaga 300
caaggattcg gtcgggggca ccagggctgt gatcaggagg tgccggagaa tcggggattg 360
gaagcagaga gattcttggc agttgaagca aaagtcggat ctttggtttc agatgttaaa 420
agcaacatgc attgcttgtt tctggtctan aaatactaca ttcgcattt 469

<210> 605
<211> 377
<212> DNA
<213> Homo sapiens

<400> 605
cctagctacc gctcactgga tatcactcca ggcaagaata gcaggaaaaa agggagtgtg 60
gagaggcgct cggagaaaga cagctctcat agtggaagga gtgtggtcat ttagtcacca 120
agcacagcac aacttctgtg gctacttctc ggctcctgtg tgtcatcagc atcacctagg 180

tttccagctg acttgggaac tgcaagtctg agtctaacag ttttggctta gattctgaga 240
atcaaataga agaattttaa atacaagagt ttgagattgg gtatagtggc tcacacctgt 300
aatcacagca ctttgggagg ctaagaatca cttgagacta ggagttcaag atcagcctgg 360
gaaacatagt gagaccc 377

<210> 606
<211> 382
<212> DNA
<213> Homo sapiens

<400> 606
ggagtgagtt cctgagcgag tggacccggc agcgggcgat agggggccca ggtgcctcca 60
cagtcagcca tggcagcgct gcgctacgcg gggctggacg acacggacag tgaggacgag 120
ctgcctccgg gctgggagga gagaaccacc aaggacggct gggtttacta cgccaatcac 180
accgaggaga agactcagtg ggaacatcca aaaactggaa aaagaaaacg agtggcagga 240
gatttgccat acggatggga acaagaaact gatgagaacg gacaagtgtt ttttgttgac 300
catataaata aaagaaccac ctacttggac ccaagactgg cgtttactgt ggatgataat 360
ccgaccaagc caaccacccg gc 382

<210> 607
<211> 187
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(187)
<223> n = A,T,C or G

<400> 607
ggcccnnnnn gnnnnnaacn gccnactnnc taagagaccn cttcgaaaan ccagganccc 60
atcgattcgc agtattagag ccaccgcgcc cagttgtgca tttctggttt ctaagaatca 120
aaccacttgg ctgtttttag gagttacttc ccatgttata aagctgagga agcttttttt 180
ttttttt 187

<210> 608
<211> 468
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(468)
<223> n = A,T,C or G

<400> 608
ggcgnnnntc tgacncngta aaccngntct tgntcttttt gcaggatccc atcgattcgc 60
atgagatgtt ttgatatagg catgcaatgc gtagtgatga tatcatggaa aacggggtat 120
ccatcttctc aactagttat cctttgtgtt gtaaacaatc cagttaccaa cccaacctgg 180
aaattgagta ccagtaatat aggcagttat ccacgtggct ctttgaaacg tggtcgctaa 240
gctgtgcatg tttgcaaacg tggaagctgt tgtgtagatg atgttcactc ccgtgaatat 300
gcagctgtga tgtggccaac agaagggaag gaacacgcct gtgtgctcta cgtcttctgc 360
aagccggcac agctccatgc gggaccagtg ctgatgccag agtgaggtgt gggggctgtg 420
gcctgtgtct gccgcacgtg gtggcattct agcaaagcca cgtgggtg 468

<210> 609

<211> 459
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(459)
<223> n = A,T,C or G

<400> 609
tctgnaancc ttacngaaac tcttcnnaca agcccttgtt ctttttgcag gatcccatcg 60
attcgcttct tcagggaagg agctgctgtg ttttggaatg tgaaagacaa aactatgaag 120
catgtgatga aagttctaga aaaacatgaa attcagccct atgaaatcgc actggtacac 180
tgggaaaatg aagaacttaa ctacataaaa atagagggac agtcaaaact tcacaggggg 240
gaaatcaagt taaattcaga gctggattta gatgatgcca ttctagagaa gtttgctttc 300
tccaatgctc tatgcctttc tgtaaaactg gcaatttggg aagcatcact ggataaattt 360
attgaatcta ttcagtcaat tcctgaggct ttaaaagctg ggaagaaagt gaaactatct 420
catgaagaag ttatgcagaa aatcggtgaa ctctttgct 459

<210> 610
<211> 181
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(181)
<223> n = A,T,C or G

<400> 610
gaaacccttg nacgnaaact cttanacaag cccttgttct tttgcagga tcccatcgat 60
tcgcagtatt agagccaccg cgcccagttg tgcatttctg gtttctaaga atcaaaccac 120
ttggctgttt ttaggagtta cttcccatgt tataaagctg aggaagcttt tttttttttt 180
t 181

<210> 611
<211> 479
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(479)
<223> n = A,T,C or G

<400> 611
ttgaaacctc cttgntcttt ttgcaggatc ccatcgattc gcttctcctt tgtctctggt 60
ttggcaatcg gagctttcag ggcacagtgt ttgtctccag atgttgatgg aagtgggcac 120
tccttggtgg cctccaacag gaaaagcgtg ttctttcatt gtttcctata cacacagaca 180
accgtttttc caggaaggca gccccatctt tagtcattga ctgcgggcct atcatcagtc 240
atgacgaaga ccgagtgagg tgtgtgcagg cccagaacta gcacatcaca gccccagagt 300
gggctccaaa ccggtagacc agagagcctg caggataatt tccccttaa gatgggtaga 360
tttactgttc cacagccaac aggtggatac gcgtaactag aacaatctgt catgggacta 420
agtggaagaa tccatcagca ctacacagca tcttttcttc aaatacaact gtaaatctc 479

<210> 612

<211> 377
<212> DNA
<213> Homo sapiens

<400> 612
gattgaatcc tggaacctca ccatcttccc tattacgtat acttctctat tatgtataca 60
tcaccatctt ccctattatg tatacatcac catcttccct attatgtata cttctgttat 120
gtatacttca ccaccttccc tattatgtat acttccctat tatgtatact tcaccatctt 180
ccctattatg tatacttccc tattatgtat acttcaccat cttccctatt atgtatactt 240
ctctattatg tatacttctc tattatgtat acttcaccat cttccctatt atgtatacat 300
cagttttcaa atattaaacc caccttacat ttctaggata aaccctacat tattattatt 360
attattattt tcccaat 377

<210> 613
<211> 391
<212> DNA
<213> Homo sapiens

<400> 613
ttcgtgctcc tccggacctg cctcatcccc ctcttcgtgc tctgtaacta ccagccccgc 60
gtccacctga agactgtggt cttccagtcc gatgtgtacc ccgcactcct cagctccctg 120
ctggggctca gcaacggcta cctcagcacc ctggccctcc tctacgggcc taagattgtg 180
cccagggagc tggctgaggc cacgggagtg gtgatgtcct tttatgtgtg cttgggctta 240
acactgggct cagcctgctc taccctcctg gtgcacctca tctagaaggg aggacacaag 300
gacattggtg cttcagagcc tttgaagatg agaagagagt gcaggagggc tgggggccat 360
ggaggaaagg cctaaagttt cacttggtga c 391

<210> 614
<211> 388
<212> DNA
<213> Homo sapiens

<400> 614
agaggttcat taagcatcta atttttcata ttaaatccct ttctgctaaa accagcaaga 60
gtgttctgtt atctgtaact aatcttgatg cacacatcat ggggacactg ggtcacaggg 120
tttgataagt ggtagaagaa gggggaaaga agtttgtgca catttcagag acaagaggaa 180
aaggaaaagc agagatttcc tgtgagtgca aaggcctgtc taggcaaaga tgcccctgcc 240
caccttgggc catttacaag gaaaacactt acaaacccag cagtagaaaa ccatatcaat 300
acattcccaa acaattacta cagtcagcag agatgacatc attctccttc ccatcagaac 360
aataagcctg gctctaactc tataaaca 388

<210> 615
<211> 453
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(453)
<223> n = A,T,C or G

<400> 615
tttgaactct naatacaagc ttntggttcc ntttgcagga tcccatcgat tcgtgcactt 60
cgagcgtcgg gcccggttcg aggtggctga cgaggacaag cagtcccggc tgcgctacca 120
gaacctggag aacgatgagg atggagccca ggcctctccg gagccggatg ggggagtcgg 180
caccagggat tccagccgaa cttccatccg cagctcccag tggtccttca gcaccatcag 240

cagcagcacc cagcgctcct acaacacctg ctgcagctgg acccaacacc ctttgatcca 300
gaagaaccgc cgagtggtgc tggcctcctt cctgctcctg ctgctggggc tggtgctgat 360
cctggtcggc gtgggactgg aggcgacccc ctctccaggt gtctccagcg ccatcttctt 420
cgtgccgggc ttcctgttgt tggtgcctgg agt 453

<210> 616
<211> 378
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(378)
<223> n = A,T,C or G

<400> 616
agtgtccctg ccaaattcat gtccactgga acctcagcgt gtgacttagc tgaaaacagg 60
gccctgccat ctcatactgt cctcctcggt cacactggct ggaggcaaag ccctctcccc 120
tgtttccgga aatctccaac cctgtgcacc ttttatcagt cttcacttgg gtggattttt 180
ctgttctcta gagctcaact ccaaccgccc atttgccaaa aggcaattga gagctgttct 240
ggcagccgag gctcctccct ctcctgctgg aggtccaggg tctgtgggtg tacagagggg 300
cagcctggcg agggcaggga ctctggatct tttgtcctct gngtgcccca ggacctaaac 360
ccggcctgac agtaggtg 378

<210> 617
<211> 414
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(414)
<223> n = A,T,C or G

<400> 617
ggaaggctca cagggctgaa tcttgaagaa tgggggttct cagggttaca gagaagggga 60
ggacattctg gacagaaatg gaatgtgtga agatattgtg tacttggaga ttgcagatgt 120
cgtgtggggc taaacattct tgttcagctg caagaacatc tgaaacctgg gaaggctgtg 180
ggaaacataa agaactagat gtataatatt ttcagttttt ttttaaatta gtaactatta 240
atagagtagc acaaattaat tgggtgcttg ttctggacca gatactgtgc tactactgtg 300
ctaggtcctt tgttttttta gacatggggt ctcactgctg ttgccgaggc tgaaatgcan 360
ngcacannca cagctcacca cagcctcgaa cttctgcctc aacaatcctc ttgc 414

<210> 618
<211> 458
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(458)
<223> n = A,T,C or G

<400> 618
ttctgactca tatcnagcta cttgttcttt ttgcaggatc ccatcgattc gagcaagaag 60
cagagtgaga gaggtgggga gaattcaaga tgatgttaga gagatgacag agtctaggtt 120

agggagggcc tgagtccttg tagactctga gtacggtgct gagcagggaa gagacaggct 180
ctggcttagg gtttagaagg aacacaggct actgcgatga ggattgtctg aaggggaaca 240
aaggccaagg tggggagacc acttagaact ctactgctct actttaggtg aaatgttaga 300
actgggtgag ccgaaaacat gctcagcatc tgtgaggagg gggcacagag ggagcaagga 360
tggatccagg gtttttagtc tgatcaactg aaagtctgga acagccatta cttaaaataa 420
ggaagtctaa gggaagaaga gatttagggg agaatatc 458

<210> 619
<211> 387
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(387)
<223> n = A,T,C or G

<400> 619
gtctttcact cttctggcat cggtggtttt acttcttcga ttgaaccctg cttcctcgac 60
ccccctggga ggccgccttc ttcaggcgcc tcccttctct ccacgagctc gctctgacag 120
ctgaggaact ggcaagatcc tgctacccag agggtgaatg ggtatctttc ccggaataat 180
cctaattttt ctaagggtga agtttgcaac ggcggccgtg attgtaagcg gacaccagaa 240
aagtaccact gtaagtcatg agatgtctgg tctgaattgg aaaccctttg tatatggcgg 300
ccttgcctct atcgtggctg agtttgggac tttccctgtg gaccttacca aaacacgact 360
tcangttcaa ggcccaagca ttgatgc 387

<210> 620
<211> 394
<212> DNA
<213> Homo sapiens

<400> 620
tgggcgttct tataaaacag ttctggaccg ttggagagag tctctccttt cttctgctag 60
tctatcccaa gtttttcttc acctatccac cttggatcgt agcgtgatat ggtctaaatc 120
tatactgaat gcgcgttgca agatatgtcg aaagaaaggc gatgctgaaa acatggttct 180
ttgtgatggc tgtgataggg gtcatcatac ctactgtgtt cgaccaaagc tcaagactgt 240
gcctgaagga gactggtttt gtccagaatg tcgaccaaag caacgttcta gaagactctc 300
ctctagacag agaccatcct tggaaagtga tgaagatgtg gaagacagta tgggaggtga 360
ggatgatgaa gttgatggcg atgaagaaga aggc 394

<210> 621
<211> 453
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(453)
<223> n = A,T,C or G

<400> 621
tatgagnnat gnnaccttca aacaagctac ttgttctttt tgcaggatcc catcgattcg 60
ccagctcata ctttccttcg ctgtccctcc cgcactcctt aggcaagatt tcccagtaaa 120
gattttctgt gcgtatttta aaagtcgtgt taatactcat gataattatt agggacctgg 180
cagcgtgatt ggagtatgga tgtttccgta aaagctggaa ttccgtaaaa gcattgacgc 240
agcccctaca ctccatccca accaagaaac tgcatttcct ggggccaggt gggagctgcc 300

tttgccccac tgcctcccct gttctgctct ctcagtcaac atgtggaaat ccaaggagga 360
caaagactcc agccacgctg ctaaataggg ctcctctctc ctctctctct ctctaggtgg 420
taaggntggg gattaagtcc aggtacagaa caa 453

<210> 622
<211> 462
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(462)
<223> n = A,T,C or G

<400> 622
attgaanccc tattgnaacc ttnaaacaag ctacttgttc tttttgcagg atcccatcga 60
ttcgcaagaa tctgctctta gtagccctgt gcctgacctt cggggtggag gtgggcttta 120
agttcgccac caagaccgtc atctacctgc tcaacccctg tcacctggtc accatgatgc 180
atatctttct cctggcctgc cctccatgtc ggggagctat cgtcgtcttc aagctacaga 240
tgcacatgtt gaatggagct cttctggcat tgctgtttcc tgtggtaaac actcggctgc 300
tcccctttga attggagatt tactacattc agcatgttat gctctacgtg gtacccatct 360
acctgctttg gaaaggaggt gcttacactc cagagcccct cagcagtttc cggtgggctc 420
ttctctcaac tggcctcatg ttcttttatc acttcagcgc tt 462

<210> 623
<211> 457
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(457)
<223> n = A,T,C or G

<400> 623
tgaatccata atacaagctt nttgttcttt ttgcaggatc ccatcgattc gcggggacgg 60
agctcggcgt gcttgctgct ggagggtgat ggccctgcaa ggctgtgggc tccgacctca 120
ccgggagtcg acagcgagag gttcgccgaa gagcgaggtt ctgggcgagc gctgaacgcc 180
ggccccaagc accccgggtc tttacacagt ccgcgtccac agactctgac gaagacgtgg 240
atctgctctc gctttagctg ctcgcggtcc tccagatcat gtccgcgact cctgcgactc 300
cgcgcggaaa aaaaagtttg ccaggcgtgg actcaatgac ctttccaagc tgtgcgcctc 360
gctgcctgga ccgggtctga gcgcggctgc ccaggttgac ctttctgcgg gagggctttc 420
tctacgtgct gttgtctcac tgggtttttg tcggacc 457

<210> 624
<211> 463
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(463)
<223> n = A,T,C or G

<400> 624
ccccctttgg naacccttaa acaagctact tggtcttttt gcaggatccc atcgattcgt 60

gcctatctcc cacccctcgt ttcctcacaa agcaagccat agagactaga attcctcttt 120
ctcaacctaa aaaatacgtc tgtaactttc ccctgccttt ctgtgtaaga tctggccatc 180
aagacatttt ttgacctacc ttccctcatt ccaggaaggg tcctgtcctg tacccgggag 240
gaagaaatgc tacacagaga agccaagatg aatctgaaca gacagccttt gtcagttcca 300
cagattccat aaaagttaac tccagagcag agaatgatgc cacagtcggg ataacatcca 360
atatttgcaa tcanaagaaa tatgagagtc ttgtccatca cccaggctgc agtgcagtgg 420
cacgancttg gctcactgca agcttcacct cccgggttca cgc 463

<210> 625
<211> 444
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(444)
<223> n = A,T,C or G

<400> 625
tttggnactc tanaatacaa gctacttgtt ctttttgcag gatcccatcg attcgccaaa 60
acaaagggga tttggtgatg gaggctttgt tagaaggaat acaaaatcga gggcatggtg 120
ggggattttt gacatcttgt gaagcagaac tacaggagct catgaaacag attgacataa 180
tggtggctca taaaaaatct gaatgggaag gacgtacaca tgctctagaa acttgcttga 240
aaatccgtga acaggaactt aagagtctta ggagtcagtt ggatgtgaca cataaggagg 300
ttggaatgtt gcatcagcag gtagaagaac atgaaaaaat caagcaagag atgaccatgg 360
aatataagca ggagttgaag aaactacatg aagaattatg catactgaag agaagctatg 420
aaaagcttca gaaaaagcaa atga 444

<210> 626
<211> 456
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(456)
<223> n = A,T,C or G

<400> 626
tctgaaancc ttnnngnnac ccttnaatac aagctacttg ttctttttgc aggatcccat 60
cgattcggct atttacttcc cttatctttg ggatctgaca ctaactctgc aacttactgt 120
ttctgtaccc cattttctta cctaaaagga ggttaataat atgactcatc tcacaaactt 180
gttgcgaaga ctgaataaga taaagcgtgc aaagtcttaa gaagaagaca tggcatttag 240
taactaataa aaaatgtcac ctctctcagt atcattatta ccttagaaaa agtccttctc 300
attttcatca gaggccaggc acatagttag ggttcaaaat gcagttgaca aactgactga 360
attagcatag tctttaaaaa ctggaccctg gaaccatatc ccctgtttgt ccttccctgc 420
cccatgggta agcaaatatc tccactgcct gggcta 456

<210> 627
<211> 458
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(458)

<223> n = A,T,C or G

<400> 627
tctanaatac aagctacttg ttctttttgc aggatcccat cgattcgctc aggaggctga 60
ggtaggagaa ttgcttgaac ccaggagaca gaggctgcat tgagccaaga tcacaccact 120
gcactccagc ctgggcagca gagcaagact ccatctcaaa aaaaaaaaaa nnaaaannaa 180
aaanagggtt atncnttcat ttntggnggg ggnanaaana aaccttgttn nntntnaaag 240
gggnnaaggn ggnagggncc ttnaaacnnt tntttncnaa nctntcnngg nggttnccag 300
naccnntact gtncnnaaan gggttcnntt ttnanctnnn tcngtttngt aancanccan 360
cccantngng gggatntnaa agggncttna gnacntntac cnntggggng gccccnttnc 420
ccaaatagtt aaaaaaaaaa ttgttntggc ancctgtt 458

<210> 628
<211> 475
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(475)
<223> n = A,T,C or G

<400> 628
ttggnncccct ttttgnactc tanaatacaa gctacttgtt ctttttgcag gatcccatcg 60
attcgctgac ctctgtgagc tcagtctgct ctatgctgag ctggaggtgg agctgtcgcc 120
agaagtgaga agggctgcca cagctcgagc tgttcacata ttaaccaagc tgactgagag 180
cagcccctat gggccctaca ctggacaggt gttggctgtt cacattttga aagcgcgaaa 240
ggcttatgag cacgcactgc aggactgttt gggtgacagc tgtgtctcca atccagctcc 300
caccgattcc tgtagccgcc taattagcct ggctaaatgc ttcatgctct tccagtattt 360
gaccataggg attgatgctg ctgtgcagat atacnaaaca ggtgtttgca aaactgaaca 420
gttctgtttt cccagaagct ctggcgaggg ggacagtgcc agctcccaaa gttgg 475

<210> 629
<211> 451
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(451)
<223> n = A,T,C or G

<400> 629
accccntttg ggnactctan aatacaagct acttgttctt tttgcaggat cccatcgatt 60
cgctgcaaat ttagagctta caagatgcta atggcacctc agtttccagg atagtctctg 120
cagactgctt tcactcagca ggcttccttt catgatggct gccagtaaca gctacccctc 180
atttacatcc agcagagatg aggggtatct cttcggggag ttcatgcaaa aaaaagcaag 240
aaaagctgaa atcttctcac ttcaaaggaa tggcacatga cagcacttag ccaataaagc 300
attctcttct gggactttgc aatgcaagca aatgaaacca ggaacacatg gcatttattc 360
accccaggga gttgtccaaa gcagactatt gcagctagtc tgcaatgaga ccactgctga 420
ggaaactact ttctagcatt ctggagttat c 451

<210> 630
<211> 461
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(461)
<223> n = A,T,C or G

<400> 630
ccttnnnnnn nnntttggna ctctanaata caagctactt gttctttttg caggatccca 60
tcgattcgtt cagcctagca gccatgatgc cctcggaacc tggccctatg gtatggatgt 120
gaggactacg cactggctgc cctgagcccg gggctggaaa tcatctttgg ctgccaagga 180
tctggaccta ttttggagtg gagagtcatg gttaaaattc ccagcccggc ccaggtacgg 240
gaatcccagc attttgtgag gccgaggcag ggggatcacc tgaggtcagg agtctctact 300
aaaaatacaa aaattagaca ggtgtggtgg tgggcgccac tcaggaggct gaggcaggag 360
aatcacttga acccgggagg cagaggttgc agtgagccag atcatgctgc tgcactccag 420
cccggccgct caccgtgtgt gttgctgggt gctggggctg t 461

<210> 631
<211> 474
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(474)
<223> n = A,T,C or G

<400> 631
tttggncccn tttngnactc tanaatacaa gctacttgtt ctttttgcag gatcccatcg 60
attcgctgga atggtttctt cttacaatca gaatagttag gatgtaatat atttttgagt 120
gggcatttaa agtgaaaagg tacatattta catagacaca ggtgataatg tatctatgta 180
aatgcctttt gattctgcaa ctgcaggata ctctcatcaa agacacagat aaaaagcctc 240
tgtgtttcca aggccttgcc ctatacctaa cacataatat gtccaaatgg atgaagagga 300
ggcaaggaca aggatgtgat gacaaaacat tctgttatgc acttgtagca tttatgtttc 360
ttcctggggg attttataat actaaaagaa tcataatata aagagatgat taaaaaaaaa 420
atactgccgg gcacggnggc tcatgcctgt aatcccagca ttttgggagg ccga 474

<210> 632
<211> 410
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(410)
<223> n = A,T,C or G

<400> 632
cccacatcca gtcttctcca taggacaacc tgtctgctga aaggggctac ccactacaag 60
actcctctct tctgaaagct ggagactcct caggatgatc tgcccnttng aatnatngnc 120
ccacnnatat aatacnatga gagccnatgn cgccgctcan tcaacanaaa tgtgcttcna 180
ataaacccnc nttatgngag tagntctgct tgnttcctng aggnnnnaac ncganctatn 240
anacctgnnn anctaangga ntttaagatg cctgcctann cnnaagantg gaggtgnnct 300
ttgttannnt gacgnttctt ttnntnatat natnngacna aattatangc aatgtttngg 360
gannntacna nanngncacn acaaatgcct tactttacaa nccttttgtg 410

<210> 633
<211> 466

<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(466)
<223> n = A,T,C or G

<400> 633
tttgaaccnt ntatacaagc tacttgttct ttttgcagga tcccatcgat tcgaattggc 60
acgagctgct gctcccttct gggttccgag gcccatttgc gtcattgccc canngagagg 120
aagggaggtn angntatcgt ccgnggcccc agnagcccnt ttnccnnntt ggncnangnc 180
cnaantnntt tntatntcat atnanncnac tatataanga ataaacntga tcttntnann 240
tntnaaatta tnancatagt nanaggtaat tacacatnnt attnnaacaa cnnttggnat 300
ctataanttg ntcnttnnta tantaatant tttttncatt nannnnnntn atatnctaaa 360
attttnaaat attanntatc tntgatnggt nngnaatgct tacacttttt gancttatnt 420
atgggaangn agggggtgnc ntcnnnnntn tnanaannnt ntttcc 466

<210> 634
<211> 387
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(387)
<223> n = A,T,C or G

<400> 634
cttcctctgg aaatattctt ctctttgaca ttttgggtag aaaatgaaaa ttcttgtatt 60
gtttactgtg ttaaatgaag agctttaaca aaggctacaa agctgatgtg tcatatttct 120
tttatatctt cttgaaagat gatgcaatac tttgggcaaa gcaataagaa aactgaagaa 180
ggatgaaacg gttatcactt atttccttat taccgtcact tttagataaa tccatcatgt 240
ttccattttc tttggatttt tttctttctt ttacagttta catgcattgt agaataataa 300
agccgttctt ttcaagacct tttataaatc ctgntatctt gctggctggc tcacattgan 360
nnctgggaag gccagcctgc antggct 387

<210> 635
<211> 406
<212> DNA
<213> Homo sapiens

<400> 635
ccgcctccgt cgcacagtcg ggaggctttg cagtgaactt cgaccacttc cagatccttc 60
gggccattgg gaagggcagc tttggcaagg tgtgcattgt gcagaagcgg gacacggaga 120
agatgtacgc catgaagtac atgaacaagc agcagtgcat cgagcgcgac gaggtccgca 180
acgtcttccg ggagctggag atcctgcagg agatcgagca cgtcttcctg gtgaacctct 240
ggtactcctt ccaggacgag gaggacatgt tcatggtcgt ggacctgcta ctgggcgggg 300
acctgcgcta ccacctgcag cagaacgtgc agttctccga ggacacagtg aggctgtaca 360
tctgcgagat ggcactggct ctggactacc tgcgcggcca gcacat 406

<210> 636
<211> 391
<212> DNA
<213> Homo sapiens

<400> 636
ccactgccgt ctccgccgcc actgggcccc cagagcccca gccccagagc ctaggaacct 60
ggggcccgct cctccccct ccaggccatg aggattctgc agttaatcct gcttgctctg 120
gcaacagggc ttgtaggggg agagaccagg atcatcaagg ggttcgagtg caagcctcac 180
tcccagccct ggcaggcagc cctgttcgag aagacgcggc tactctgtgg ggcgacgctc 240
atcgccccca gatggctcct gacagcagcc cactggctca attcccctac atagttcacc 300
tggggcagca caacctccag aaggaggagg gctgtgagca gacccggaca gccactgagt 360
ccttccccac cccggcttca acaacagcct c 391

<210> 637
<211> 399
<212> DNA
<213> Homo sapiens

<400> 637
caccaacact gaggtgttga ggaacatggg ctttgcagca aaagcgatga aatctgttca 60
tgaaaacatg gatctgaaca aaatagatga tttgatgcaa gagatcacag agcaacagga 120
tatcgcccaa gaaatctcag aagcattttc tcaacgggtt ggctttggtg atgactttga 180
tgaggatgag ttgatggcag aacttgaaga attggaacaa gaggaattaa ataagaagat 240
gacaaatatc cgccttccaa atgtgccttc ctcttctctc ccagcacagc caaatagaaa 300
accaggcatg tcgtccactg cacgtcgatc ccgagcagca tcttcccaga gggcagaaga 360
agaggatgat gatatcaaac aattggcagc ttgggctac 399

<210> 638
<211> 465
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(465)
<223> n = A,T,C or G

<400> 638
atttgaancc ttttgnaacc nnnaaacaag ctacttgttc tttttgcagg atcccatcga 60
ttcgtatctc aattgattgc tcacagtcag ttacagattt aaggccttgt tccactcttt 120
ctcctcttct caccgccgca cttgactaat cttaaaaaaa gagagagaaa gattttgtgc 180
tctttctgt atgtatgtta tattttactt taaaagaaag tggagggggg tggctgcgat 240
catagccacc aggccacaca tatgcaaatt agagtcttcg agcaacaggt gattccaata 300
tacaccctgg ccaatggctg agctagctag acaaaagcct ttattttctt taaaaagatt 360
ttggggccga acaaggtggc tcacgcctgt aatcccaaca ttttgggagg ccaaggcggg 420
tggatcgctt gagcccagga gttcaacatg ggcaacatgg caaaa 465

<210> 639
<211> 456
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(456)
<223> n = A,T,C or G

<400> 639
tcttgcccct tatcaagcta cnngaacnct tgnacggccc ttggnntttc tgcnggatcc 60
catcgattcg cttaagtgta aaatgcaaaa ctataacatt cccagaagaa cacaggagaa 120

aatctgtgtg atctggagtt tggcaatgta tttttagata caatacaaaa agcacacctc 180
atgaaaacaa ttgatacatt tgactttatt aaagttaaaa tcttctgcat tgcaaaaaaa 240
ctaagagaat gaaaatccaa gtcataaact gggaaaaaaa tgtttgcaaa atttatatct 300
gataaagaac ttgtatccaa aatatacaaa gaactcttta aatccncnat aagaagacaa 360
cccaatttaa aaataagcaa agatcttaat aaacatctca ccagataaga tatgcagatg 420
gaaaataanc ntgaaatgat gctcaacatc attagc 456

<210> 640
<211> 455
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(455)
<223> n = A,T,C or G

<400> 640
ttggttncta tacacaagct cttgttcttt ttgcaggatc ccatcgattc gaaaaagctt 60
ttagtgggaa atcagatctt attagccacc agagaactca cactggggaa aggccctaca 120
aatgtaataa gtgtgagaaa agttaccgac accgttcagc cttcattgta cataaaagag 180
ttcatactgg ggagaagccc tataagtgtg gtgcctgtga aaaatgcttt ggccagaaat 240
cagaccttat cgtgcaccag agagtccaca caggtgagaa gccgtataaa tgcctggaag 300
tatgagaagt tttactcgga gtgccaacct aattaggcac caggcaactc acactcacac 360
ttttaaatgc cttgaatatg aaaaaagctt taactgtagc tcagatctta ttgtcatcag 420
agaattccat ggaagagaaa ccacatcagt ggctg 455

<210> 641
<211> 375
<212> DNA
<213> Homo sapiens

<400> 641
gagagttgta atggcccgac tgttgagtga gggggagcag gggatcccaa cggcttgcgc 60
tgcctttgcg cagcagccgg cgggcggcca cgtcgcggcc tggctgggga gttgtaagac 120
gttcatcgcc gtgttatcct tgagtaaaga agcgggcttt tgccatgttg tccaggctgg 180
tctctactcc tgggctcaag cagtcctcct gcctcagtct cccaaagtgc tggaattaca 240
gggaatgaac tctggaagcc cagccaggga caatgcacct tcacagagat tctgcactaa 300
tctgagtgaa ggtctaaggt ttggaatctc cccctcatgg agagaagctt tgtatggctg 360
tcatgcttaa acagt 375

<210> 642
<211> 386
<212> DNA
<213> Homo sapiens

<400> 642
cccactcggg ggctgcgcct gcgcgttgga gaccgtgctc ctcagtctgc ggttcccgca 60
gatacagccg ctgccccgga ggtggggcca gtgctgcgac ctctctatat ggatgtgcaa 120
gctacaactc ctctggaccc ccgggtgctt gatgccatgc tcccttacct aatcaactac 180
tatgggaacc cacactcccg gacacatgct tatggctggg agagtgaggc agccatggaa 240
cgtgctcgtc agcaagtagc atctctgatt ggagctgatc ctcgtgagat catttttact 300
agtggtgcta ctgaatccaa caacatagca attaaggggg tggccgattc tacaggtcac 360
ggaaaaagca cttgatcacc acccag 386

<210> 643

<211> 377
<212> DNA
<213> Homo sapiens

<400> 643
gtcaacagaa ggagagcgaa agcaaattga agcacaacag aataagcagc aggccatttc 60
agagaaagat cgggggaatg gatttttcaa agaggggaaa tatgaaagag caattgaatg 120
ctatactcga gggatagcag cagatggtgc taatgccctt cttccagcta acagagctat 180
ggcctatctg aagattcaga aatatgaaga agctgaaaaa gactgcacac aagccatttt 240
attagatggc tcatattcta aagcttttgc cagaagagga actgcaagaa cattttttggg 300
aaagctaaat gaggcaaaac aagattttga aactgtttta cttctggaac ctggaaataa 360
gcaagcagta actgaac 377

<210> 644
<211> 493
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(493)
<223> n = A,T,C or G

<400> 644
tgaaccctac gttatctttc tgtnaaagcc cctcgggatt tttgcaggat cccatcgatt 60
cgccgccgcc ggtgacctcg gcggagatca tttggcattt agctgtgatg ttgctaaaga 120
acatgatgtt caaaatacat ttgaagagct ggagaaacat ttaggtcgag taaatttctt 180
ggtaaatgca gctggtatta acagggatgg tcttttagta agaacaaaaa ctgaagatat 240
ggtatctcag cttcatacta acctcttggg ttccatgctg acctgtaaag ctgccatgag 300
gactatgatt caacaacagg gagggtctat tgttaatgta ggaagcattg ttggcttaaa 360
aggcaactct ggccagtccg tttacagtgc cagtaaagga ggattagttg gattttcacg 420
tgctcttgct aaagaggtag caagaaagaa aattanagtg aatgtagttg caccagtgca 480
atacttgtat gga 493

<210> 645
<211> 384
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(384)
<223> n = A,T,C or G

<400> 645
gccgccgctg gtgcttattc ttttttagtg cagcgggaga gagcgggagt gtgcgccgcg 60
cgagagtggg aggcgaaggg ggaagtgttg gaggttttta aattcccctg catttatata 120
gtccctaccc ctatatgttn cagatcnctc aggacctgtc aaacttaacn ntncctactt 180
tcgatttgac ctntactacn cnactggaga cctgnatgcc anccgcnctg tcccatttga 240
actnnngccc aancattttt gagtttttta ccnccctctn nctttcctnc cccttncanc 300
ntnctntntt tctgtcccnc cgnactttcc cacctactta tntngattnc attctgaaaa 360
ntttttttcat gacnaaantc tttc 384

<210> 646
<211> 457
<212> DNA

<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(457)
<223> n = A,T,C or G

<400> 646
tctagaatac aagctcttgt tcttcttgca ggatcccatc gattcggtcc acccaatgat 60
ttggaatgtg ccttgagccc atatgccttg taatacaaac tcgtctccct cccatttgga 120
atagccacca atcaagattt aatccggctg gttgcataca cacaggatgg agtgatgcat 180
cccaggacaa ctttcctcat ggtagatgag gaacagactg ttccttttgc cttgagggat 240
gaaaacctga aaggagtggt gtatacaaca cgaccactac gagaagcaga gacctaccgc 300
atgagggtcc gagcctcatc ctacagtgcc aatgggacca ttgaatatca gaccacattc 360
atagtttata tagctgtgtc cgcctatcca tactaaggaa ctctccaaag cctattccac 420
atatttaaac cgcattaatc atggcaatca ngcccct 457

<210> 647
<211> 386
<212> DNA
<213> Homo sapiens

<400> 647
gcggcttagt cggtggcggc cggcggcggc tgcgggctga gcggcgagtt tccgatttaa 60
agctgagctg cgaggaaaat ggcggcggga ggttagccac ccagtagagc tactgagttc 120
catcctggta ctggggaatg tctatagaga ctcctgtgat gtgatccatc ttcagatctt 180
gcagccatga ctactagcac ctgctccagg tcccacgtgt ttcaatggac atttgtctcc 240
atcatagcca catcacacca cagatttgat tttcagttc atttggtcaa atgccactca 300
aaacaagaaa tgctaaagga gaagaagagt ccagttcaag atctgcattt catttctgat 360
gttggcccaa caactttttc tttcag 386

<210> 648
<211> 401
<212> DNA
<213> Homo sapiens

<400> 648
gtccgagtgc tgctcatgct gcggaagatg ggatcaaacc tgacagccag cgaggaggag 60
ttcctgcgca cctatgcagg ggtggtcaac agccagctca gccagctgcc tccgcactcc 120
atcgaccagg gtgcagagga cgtggtgatg gcgttttcca ggtcggagac ggaagaccgg 180
aggcagtagc tgcaaagccc ttggaacacc ctggatgctg ttgagggcca agagatctgt 240
gtggctcctg ggccggctga gtggcagcag ccccccttgc cccacctccc ccttccccta 300
cccaaccctg ccctgcccca ccccacctca cagctactca gtggggctgg catcaaggga 360
gacaccagtg gtgcgtttat aattggctta aagggatgga c 401

<210> 649
<211> 377
<212> DNA
<213> Homo sapiens

<400> 649
aaacaattga aattggactg gaaatggagt gggcgaagta aatacacacg ttaccagagt 60
gttgagtttg ggcactctta acagtcatta ttactcagtg tttattgata aatcagacaa 120
aattgccatc ttagttttga gtgtctaaat taggtgataa tggttattat aatttggtta 180
ttttgcatga ctcaagctag taagtaaata cactctgtaa tctcaaccaa ttttttaatt 240
tgttaaatac tatcattgtc aacatctttt ttcatttgct tcagacttaa tgaacaagcc 300

agtgaggaga ttttgaaagt agaacagaaa tataacaaac tccgccaacc atttttcag 360
aagaggtcag aattgat 377

<210> 650
<211> 368
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(368)
<223> n = A,T,C or G

<400> 650
tgggtcactg cccctcctgc cagcggctct tcatggtcct gctcctcaag ggcgtacctt 60
tcaccctcac cacggtggac acgcgcaggt ccccggacgt gctgaaggac ttcgcccccg 120
gttcgcagct gcccatttgc gtcnttngna caaannatcc nttnnccaga tnnncaanta 180
nctgacattc atacggagtc aanacacgtt tctgangact ggntnntana nnttncgttn 240
tntttaacag ccattgngcc ctgantgntt nngagagcgt gaaaatttct ntganctgnt 300
cagcatgacc gganncaaant agagnatcaa gancatncga tccaaattat ncggctcctc 360
atgcggtg 368

<210> 651
<211> 389
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(389)
<223> n = A,T,C or G

<400> 651
gtagcggccg gagccgtgcg agttctctac cctgcttcgc gagcgggcga gagaacgcga 60
gtcccaggat ccccggcacc cagttctctt ccactgcatt cccccggcgc gtgtgggacc 120
gaggtggaca tggatccgca gaggtccccc ctattggaag taaaggggaa catagaactg 180
aagagacctc tgattaaggc cccttcccag ctgcctctct caggaagcag atcaagagga 240
ggcctgacca gatggaagat ggcctggagc ctgagaagaa acggacaaga ggcctgggtg 300
caacgaccaa aattaccaca tcccacccaa gagttccatc cctcactaca gtgccacaga 360
cacaaggcca gaccacagct naaaaagtt 389

<210> 652
<211> 386
<212> DNA
<213> Homo sapiens

<400> 652
actgcctctc tagattccac ctctgtgggc agggcatatc ggaacaaaag gcagcagccc 60
tagtcaggga cttatagtta aaaccctcat ccccctggga cagagcacct ggggaaaggg 120
gcagctgtgg gcacagcttc tccagacttc aatgtccctg cctgacagct ctgaagagag 180
cagtggttct cccagcatgg cattcaagct ctgggacaga ctgcctcctc aagtgggtcc 240
ctgaccgctg tgtagcctga ctgggagaca tctcccagta ggggccaaca gacacctcat 300
acaggagagt tctggctggc atctggtggg cgcccctctg ggacgaagct tccagaggaa 360
gtatcaggca gcaatatttg ctgttt 386

<210> 653

<211> 332
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(332)
<223> n = A,T,C or G

<400> 653
ccccctgaac ctccctccct ctgcctagac actggggtac ccctccagat gtggggacat 60
tccaccccag tggggacagc cattccccta cctgctccag gagcctggat tggctttaaa 120
tggctcatca tcttccagct tcttaaactt agcgcctgtt cccagactgg agaccttggg 180
atgggggagg tgtgggaggt tttctcnnnn nctgactcan ccactncctn ggctgtggna 240
nnntnaggnn gnnggctctg gatcangcnc cngancctgt gcaggttncc catttgnnna 300
nttncccnnn nnannnnann anngacatga tg 332

<210> 654
<211> 382
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(382)
<223> n = A,T,C or G

<400> 654
aggctctagc ccaactccca ggtggtccat tttggtccat attatttttt ttcatgcttt 60
taactttggg tctcgattct cagtttgctt cgattgaaac gatcacaaca acaattcaag 120
atttatttcc caaagtgatg aagaaaatga gggttcccat aactttgggc tgctgcttgg 180
ttttgtttct ccttggtctc gtctgtgtga ctcaggctgg aatttactgg gttcatctga 240
ttgaccactt ctgtgctgga tggggcattt taattgcagc tatactggag ctagttggaa 300
tcatctggat ttatggaggg aacagattca ttgaggatac agaaatgatg attggagcan 360
agaggtggat attctgctat gg 382

<210> 655
<211> 397
<212> DNA
<213> Homo sapiens

<400> 655
agtggctgct gcgttttcgt gtctgagtcc ttcctgggtt ctaatgaggg cgcggttctg 60
ctgtgcccgg cccgcgaggt ctaaggcatg ggcttccagc ctccggccgc tcttcttttg 120
aggcttttcc ttctgcaggg catcctgagg cttctgtggg gggacctggc tttcatccct 180
ccttttatcc gaatgtccgg ccctgcggtc agcgcgtccc tggtcggaga caccgagggt 240
gtgaccgtgt ccctggcagt gctgcaggac gaggcgggaa tattgccaat tccgacgtgt 300
ggagtgctga acaatgagac ggaagactgg agcgtgactg tgatccccgg tgcggtgttg 360
gaagtgacag tgaggtggaa aagaggtctg gactggt 397

<210> 656
<211> 396
<212> DNA
<213> Homo sapiens

<400> 656

gcaagaaggg gctgactctg aaccaggaag ctgtgctgtg ctcaccagac actttgatct 60
tggacttctc agcctccaga actgtgagaa agagatttct attatttata agccacccag 120
tagatggtac tttgttacag cagcctgaaa ggactaagac accgacctag tctccctgat 180
gaaaaagttt ctctcagact tctacccttt ccaatgtggc caaagctttt cattccgaag 240
aagtttcctt tctgagaacg ctcattgtgt cgtttggctt tccccgtctc tgcttgacac 300
atgaaccaaa acagaggcag ccaaagcagg gaaaaaaaaa tcctaggatc agagtccact 360
ctatgccctt ttgagcttca aaaggagaaa gagaca 396

<210> 657
<211> 369
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(369)
<223> n = A,T,C or G

<400> 657
cagtctcctg ccggaagaaa tgggttgagc ccgaaaggag gctgtctgag gaagggagag 60
ggagggctgg ggttttcctt cccctcccta caccatttcc ttcctggatc gcacncnggn 120
aattctntct gcctncaatt ctntccagan ccctntnant ngncnccana caaatnancc 180
atntttncnn nctttccgac aacacattna nttctcnnan ntgccaaacg cattgggaaa 240
gaccttaaca acacntttgn ccatctgtng aaacttacaa tcttgcaaaa ancaagtacc 300
tnttttntga tnaancacng naaattttnc accttanctn ttcatcanac cggacattat 360
ctnccacac 369

<210> 658
<211> 379
<212> DNA
<213> Homo sapiens

<400> 658
ccagtcagcg gggtggtctc ctgggtcccc agcctcgcca ttctgtgggg ggtggtgact 60
gggcgaactc tcagatgcct cagcaccctc ccaccccttc ctcaggcaga acgagatctt 120
gtggcgggag gtggtgacac ttcggcagag ccacggcggg gccgagcaat gcaggaggca 180
agagaaagct gtccctgatg ctggatgagg ggagctcatg cccaacacct gccaagttca 240
acacctgccc tctacctggt gcccttctgc aggaccccta cttcatccag tcgccctcac 300
agggccaggg gccccatcat ctctgacatc ccagaagact ctccatcccc tgaggggacc 360
aggctttctc cctccagtg 379

<210> 659
<211> 389
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(389)
<223> n = A,T,C or G

<400> 659
ccagtcagcg gggtggtctc ctgggtcccc agcctcgcca ttctgtgggg ggtggtgact 60
gggcgaactc tcagatgcct cagcaccctc ccaccccttc ctcaggcaga acgagatctt 120
gtggcgggag gtggtgacac ttcggcagag ccacggcggg gccgagcaat gcaggaggca 180
agagaaagct gtccctgatg ctggatgagg ggagctcatg cccaacacct gccaagttca 240

acacctgccc tctacctggt gcccttctgc aggaccccta cttcatccag tcgccctcac 300
agggccaggg gccccatcat ctctgacatc ccagaagact ctccatcccc tgaggggacc 360
aggctttctc cctncagtga tggcaggaa 389

<210> 660
<211> 395
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(395)
<223> n = A,T,C or G

<400> 660
agaaggctgg ataattggag gaggcagaaa attagtgcag agaagatggc caaattgcag 60
tttctgaggt catcagagaa gatttgccag aggctttcgc ttacccaagg gaagtaatgt 120
taaagggtca tgtgtttttc tgaagcaaag tatcgctttt acagagaaat ggctgctacc 180
tagggccagt gccttcacag tttggttatg ctaagtagaa gatacagatt tgtaatgcct 240
aaattctcac acttctaatc ctacagtcca attattctgg catttgctac aatgtgctct 300
gaagaaatgg attggaaata nncnnncnnn tnantaaata antaattcca caggaggaaa 360
aaaatgcgtt ctgaanggat caggattttc aaagc 395

<210> 661
<211> 464
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(464)
<223> n = A,T,C or G

<400> 661
agaacccttt gaaanntntg naacccataa tacaagctac ttgttctttt tgcaggatcc 60
catcgattcg agggagcgaa gcagcgcggg cagcgagcga gatgcatcac cgaggcttcc 120
tcctcctcac cctcctcgcc ctgctggcgc tcacctccgc ggtcgccaaa aagaaagata 180
aggtgaagaa gggcggcccg gggagcgagt gcgctgagtg ggcctggggg ccctgcaccc 240
ccaacaccaa agattgcggc gtgggtttcc gagagggcac ctgcggggcc catttgcgtc 300
attccccata gatatccttg caantnaatn nggngtttgc tnaaagcaat ntnttnccaa 360
accctagann tgacccctca ntgccctaat nanngcttgt tcntggtgan cnntctatgc 420
cctgnatann gcttntnttt ctttgcccaa anccaaaaaa aaaa 464

<210> 662
<211> 446
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(446)
<223> n = A,T,C or G

<400> 662
atggagnnaa nnaaactctt antacaagct acttgttctt tttgcaggat cccatcgatt 60
cgctcgggcc ccgatgtccc gacacggcgg cgtcggctac agctccgggc ggccacggcc 120

agaatgaaaa cggccgcact gggacacgac ctggacgggc aggacgcgga tgaggatgcc 180
agcggctctg gagggggaca gcagtatgca gatgactgga tggctggggc tgtggctccc 240
ccagcccggc ctcctcggcc tccataccct cctagaaggg atggttctgg gggcaaagga 300
ggaggtggca gtgcccgcta caaccagggc cggagcagga gtgggggggc atctattggt 360
tttcacaccc aaaccatcct cattctctcc ctctcagccc tggccctgct tggacctcga 420
taacggggga ggggnggcct gnatca 446

<210> 663
<211> 394
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(394)
<223> n = A,T,C or G

<400> 663
gggcggtgtt ggtttttcgc tcgtcgactg cggctcttcc tcgggcagcg gaagcggcgc 60
ggcggtcgga gaagtggcct aaaacttcgg cgttgggtga aagaaaatgg cccgaaccaa 120
gcagactgct cgtaagtcca ccggtgggaa agcccccccgc aaacagctgg ccacgaaagc 180
cgccaggaaa agcgctccct ctaccggcgg ggtgaagaag cctcatcgct acaggcccgg 240
gaccgtggcg cttcgagaga ttcgtcgtta tcagaagtcg accgagctgc tcatccggaa 300
gctgcccttc cagaggttgg tgagggagat cgcgcaggat ttcaaaaccg acctgaggtt 360
tcagagcgca gccatcngtg cgctgcagga ggct 394

<210> 664
<211> 385
<212> DNA
<213> Homo sapiens

<400> 664
gtgggacgcg ccgagccgga ggctgcagga tgatgcggtt catgctatta ttcagccggc 60
agggaaaact gcggctgcaa aaatggtacc tggccacttc ggacaaggaa cggaagaaga 120
tggtgcgcga gctcatgcag gttgtcctgg ctcgaaagcc caagatgtgc agcttcctgg 180
agtggaggga cctcaaagtt gtctataaga gatatgccag cctctacttc tgctgcgcca 240
tcgagggcca agacaatgag ctcatcacac tggagctgat ccaccgatac gtggagctct 300
tagacaaata ctttggcagt gtgtgcgagc tggacatcat cttcaacttt gagaaggcct 360
acttcatcct ggatgagttt ttgat 385

<210> 665
<211> 368
<212> DNA
<213> Homo sapiens

<400> 665
gcaatttaaa tcaaaattaa agcttgaatc tctaaaactg gctaacctca tctggaacat 60
gtggctcccg cttgcaccta agatcacctt ctccattgtc taccaggcta gcgtgagcca 120
cacctgttca gttttccaac tatcagctaa gagaaagact tcattaatat ttggaggata 180
caggccgggc acagtgtctc atacttgtaa tcccagcact ttgggaggct gaggcaggtg 240
gattgcttga ggccaggggt tcaagacctg cctggcaaac acggtgaaac cccatatcca 300
caaaaaatat gaaaattagc cagacatggt ggtttgtgcc tgtaattcca tcttcttggg 360
aggctgag 368

<210> 666
<211> 368

<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(368)
<223> n = A,T,C or G

<400> 666
gatcttctga ggtcaggagt tcaagaccag cttggcccac agggcgaaac tccatctcta 60
ctaaaatata aaaaattagc caggcatggt agcaggtgcc tgcaatccca gctgctcggg 120
aggctgaggc aggagaatca cttgaacctg ggaggcagag gttgcagtga gctgagatcg 180
cgccaccgca ctccaccctg ggcgacacag cgagactctg tctcagaaaa agaaacctcc 240
cttgaattga aacttcgata tgaaggttgc aacccttcct ttttgttggt gtggcttggc 300
anatcnttng ngctcctggn tgtatctcct gagncncttg tttcaaaacn gncnttggtc 360
ggcacatg 368

<210> 667
<211> 402
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(402)
<223> n = A,T,C or G

<400> 667
tagaccagcc tgctcaacat ggtgaaaccc catatctact aaaaatacaa aaaattagcc 60
aggcgtgttg gtgcgcgcct gtatccccgt tactcaggag gctgaggcaa gagaatagct 120
tgaacctagg aggcagaggt tgcagtgagc caagattgcg ccactgcact ccaacctgag 180
tgacagagcg agactccgtc ccccctccca aaaaacaaaa aaaaaangaa gaaangaaac 240
cngaaanttn tttttttcnt ancaaagtnc ncanacnttt taagtngact nttgacaaac 300
ctagttnatg aacaatngnt tntntatgta gcatttngnt ttttttattg ncanagnaaa 360
aaaaggcata tttccatgac tactttaaan ggntttttt tg 402

<210> 668
<211> 383
<212> DNA
<213> Homo sapiens

<400> 668
gggaaagtct aggagtagga ctgtgttttc cagtgaatgg aaaacttcaa atgtgacttg 60
gcaatgcttt tgagtagcac atgagcacct agtacttgga aaaactgaga tacagctctg 120
ttcaacttcg agtgctcaac ttcactaaat cacagtaatg agacctttga gataggagaa 180
atctgtaacg gagccacaga agaatacttt ttggaaaggg ctttccggtt tgatccagga 240
gtttatcagc attctggtac ttcatgtatt tgtcatttgt gcctttaagt aaatacacat 300
ctttatgtgt agtaccctca aaactaacct atcaggagac ttcctactgt tagagatatt 360
gtagtttttc tctgatgcct taa 383

<210> 669
<211> 385
<212> DNA
<213> Homo sapiens

<400> 669

gaataatacc tcaataaagc tgttataaaa atatacaatt cagtggttct tagtacattc 60
acagagttgt gcaaacatca catctaattc cagaacattt tgatcactcc tcccaaactc 120
catagacaac acaattttaa ctaagattcc aattgggatt tctgtggaac ttgatgagtt 180
agggccaaaa gtaatcaaga tattcatgag gaaggataac agaatggcaa aacttgcttt 240
aataatttgt gcagggatag acaaatactg tacaccagtc tctcaatagg gagatcaaaa 300
ccaaattcac acagacatga aaagttgatt tatgacagat gatgttgcag tccctgggga 360
aagaatggaa atggtgctag aataa 385

<210> 670
<211> 368
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(368)
<223> n = A,T,C or G

<400> 670
caaaaatatg tacaaattga cctctgttct tatttcctat tgtgagcatt ataaagataa 60
gctcctatgt aaaaccttgc tctcagatga gtaaaatatg tatcacagca tagctcagca 120
ataattcatg ctcagctgtg gggaccctgg gggctttttg aagatgatgg aaccgcacta 180
gggttgaaac tgatggctgt ggagttaatt gtgttttcga gcttgaatct cacctgtgat 240
tttttttttt taangnnggn catgactnga tttttctnat aagccaangn atttgtaggn 300
ttactggatn tannntnang gagngggnnt nnnnccttt tnnccncngg gnntnttttt 360
tnnggggg 368

<210> 671
<211> 374
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(374)
<223> n = A,T,C or G

<400> 671
cttccaagta tctccagccc agaacccttt tgagtccagg acctgtcatt catatccatc 60
ccagaaccct tttgaaccca ggacttgtca ttcatatcag accaccacga gcatttcact 120
acagcctctg atggtcttcc ctgtttcctc acttttgcct attttttttc ttttctattc 180
cctcttaagt gggccacact tttgttcccc tacctgaaat cctgtagcaa gtccctatag 240
gataggcatg tggtacagtg tgaagctcct gagtggtcaa cagctacccc gtgacaacat 300
gccacactcc atgtgccact ccctcccgct gctgctgtgt cttggcccag tggtntctcc 360
cggctgacag ccgg 374

<210> 672
<211> 439
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(439)
<223> n = A,T,C or G

<400> 672
cccatctcta caaaaaagtt taaaaaatta gccaggcgtg gtggtgcacc tgtcgtctta 60
gctacttggg aggctgaggt gggaggatcg cttgagcccg gaagcttgaa gctgcagtga 120
gctgggatcg tgccactgca ctccaacctg ggtgagagag cgagaccctg tctcaagaaa 180
aagaaaaatg cagagaaaca ggagtcttgg ctactccttt agaggcagac tcagaccctc 240
ctgcctcaca gctttatctt tgtatttgcc ccttacttta tcttgtgcct tgagaaattg 300
ctggggagag aggtatgtcc actgggcagc tgtacaggat ggaggatcta gggcgtttcc 360
actcccagca gccaggtccc tcaccccaag ctcacccact gttggggaga ttatctncat 420
accccaaaaa cacattggg 439

<210> 673
<211> 372
<212> DNA
<213> Homo sapiens

<400> 673
gttctctgag tctgtttggt catgtgcaga aaggggttct aggcgcagct cagacgtaga 60
tggggacgca gatgtgagta cctaggtgag tctggctggt cacgtgtgga ataagtggtg 120
gtggctgcca ttactcttta agcattcttg gatctagtgc ctcctctgcc actgagtaca 180
gaattccttt tcaaattcgg gcttatgagg catgttttga tccaggctgt cgtagcaagg 240
gatttgatgc tggagtctgt gactgctgtg cgtgtggagg cttccggaag gcagccagtg 300
ctggttactg cttggagttt ggggagctgc cattttggat tgcctacctc atgccttctg 360
agaaacatct gt 372

<210> 674
<211> 348
<212> DNA
<213> Homo sapiens

<400> 674
tgcagctgtg cgtgaacggc tgccccctga gtgaacgcat cgatgacggg cagggccagg 60
tgtctgccat cctgggacac agcctgcctc gcacctcctt ggtgcaggcc tggcctggct 120
acacactgga gactgccaac actcaatgcc atgagaagat gccagtgaag gacatctatt 180
tccagtcctg tgtcttcgac ctgctcacca ctggtgatgc caactttact gccgcagccc 240
acagtgcctt ggaggatgtg gaggccctgc acccaaggaa ggaacgctgg cacattttcc 300
ccagcagtgg caatgggact ccccgtggag gcagtgattt gtctgtca 348

<210> 675
<211> 369
<212> DNA
<213> Homo sapiens

<400> 675
gatgacctgc cggccgcctt tgtggatggc accaccagtg gtggggacag cgatgccaag 60
agcctgcgta tcgtggaaag ggagagtggc cactatgtgg agatgcacgc ccgctatata 120
gggaccacag tgtttgtgcg gcaggtgggt cgctacctga cccttgccat ccgtatgcct 180
gaagacctgg ccatgtccta cgaggagagc caggacctgc agctgtgcgt gaacggctgc 240
cccctgagtg aacgcatcga tgacgggcag ggccaggtgt ctgccatcct gggacacagc 300
ctgctcgcac ctccttggtg caggcctggc ctggctacac actggagact ggcaacactc 360
aatgccatg 369

<210> 676
<211> 373
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(373)
<223> n = A,T,C or G

<400> 676
gccagctgtt ggactatgcc ccactgccag gaaacaggcg ccggaaggtt ctctgacaag 60
atctcgcttt cctagggcgg tgaaggcgtt caaaggtcgg gaaggggcgc tgggagaagc 120
ggggcagcgc tgagccatgc tcgcgaactg tgggtctgtc tgtgaagaga cccagtttcg 180
tgggaccacg gtggcgcctg cgctgggagg tgagcttgtg acagagcgaa aactacaatt 240
cccagcattc ctgtggtgcc agaactacct tgccgaaagc ctgtgcgaga tttaccccgt 300
cttccgctcc ttccaccgga aaactctgag gacatgaata atcgcaggct tggcggntct 360
tgntnttcca aag 373

<210> 677
<211> 378
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(378)
<223> n = A,T,C or G

<400> 677
gctgcttcag atgctagagg aggaccaagc tgggtttcgc atccccatga gtctgggaga 60
gcctcatgca gaactggatg caaaaggcca gggatgtacc gcctacgacg tagctgtcaa 120
cagcgacttc taccggagga tgcagaacag cgatttcttg cgggagctcg tgatcaccat 180
cgccagggag ggccttgagg acaaatacaa cttgcagctg aatccggaat ggcgcatgat 240
gaagaaccgg ccattcatgg gctccatctc gcagcagaac atccgctcgg agcagcgtcc 300
tcggatccag gagctggggg acctgtacac gcccgccccc gggagagctg agtcanggcc 360
ttgaaagcct nactggat 378

<210> 678
<211> 381
<212> DNA
<213> Homo sapiens

<400> 678
gccggagaag gacaaattct gagtctcttc gattacactc attagctgca gaagcccttg 60
tcacaatgcc tataagagct gcagagttga caagagccaa cctggggcac tatggagata 120
taaacctttt agatccagat actagtcaaa ggcaagtaga tagtacattg gcagcgtact 180
caaaaatgat gtcgccactt aaaaactctt cagatggatt aactagtctt aaccaaagca 240
actccacctt ggtagcactc ccagagggta ggcaggaatt gtcagatggg caggttaaga 300
caggcatcag catgtcctta ctcaccgcat tgaaaaattg agagaaagga cagaccaaaa 360
cgcttcagac gatgacattt t 381

<210> 679
<211> 423
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(423)
<223> n = A,T,C or G

<400> 679
catttttcatt atcagaacaa caattagatg cccgacgtcg gggattggaa gaatatctag 60
aaaaagtgtg ttcaatacga gtaattggtg agagtgacat catgcaggaa ttcctatcag 120
aatccgatga gaactacaat ggtgtgtccg acgtagagct gagagtagca ttaccagatg 180
gaacaacggt tacagtcagg gttaaaaaga acagtactac agaccaagta tatcaggcta 240
tcgcagcaaa ggttggcatg gacagtacga cagtgaatta ctttgcctta tttgaagtga 300
tcagtcactc ctttgtacgt aaattggcac ctaatgagtt tcctcacaaa ctctacattc 360
agaattatac atcaactgtg ccaggcacct gcttgaccat tcgaaagtgg ntttttacaa 420
caa 423

<210> 680
<211> 409
<212> DNA
<213> Homo sapiens

<400> 680
ccggactggg aagatggacg cagctactct gacctacgac actctccggt ttgctgagtt 60
tgaagatttt cctgagacct cagagcccgt ttggatactg ggtagaaaat acagcatttt 120
cacagaaaag gacgagatct tgtctgatgt ggcatctaga ctttggttta catacaggaa 180
aaactttcca gccattgggg ggacaggccc cacctcggac acaggctggg gctgcatgct 240
gcggtgtgga cagatgatct ttgcccaagc cctggtgtgc ggcacctagg ccgagattgg 300
aggtggacac aaaggaagag gcagccagac agctacttca gcgtcctcaa cgcattcatc 360
gacaggaagg acagttacta ctccattcac cagatagcgc aaatgggag 409

<210> 681
<211> 338
<212> DNA
<213> Homo sapiens

<400> 681
ccttttcaaa acccgcccca agcccattat caccaggagt gtgtttgaca aggactgcaa 60
aaggtttctc caggtggatg attttcccat acaggatatg atgccccacg atcagcacag 120
ggattccctc agtggtgtaa tgtaggtctc ccaggaggtt tccagctaat ccagtgctgt 180
agcgagcctc gatctccccc tgtagctcca tcagcaccca ttctgccagg cctccagccc 240
tcgcactgga aataacaatt tgcaccatga gctttctgtc tttaaaaagc aagtgaaaac 300
aagctgcaat ggcggccgca ggagtttttt tttttttt 338

<210> 682
<211> 280
<212> DNA
<213> Homo sapiens

<400> 682
gcgccagtcc acttgagaat ggaggcaggc acctccttgg aagggaataa ttaactttca 60
cgttgcctaa tcctgcattt ctggtgttaa tctagtggta ggtttatagc tgaagctttc 120
tacttaagcc gggtttaaaa acacgtccac aaaaggatat tttcttataa aaccagagtt 180
ggcccggcgc agtggctcac gcctgtaatc ccagcacttg ttcgagacaa acctggcgaa 240
catggtgaaa ccccgtctct acttttaaaa aaaaaaaaaa 280

<210> 683
<211> 487
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature

<222> (1)...(487)
<223> n = A,T,C or G

<400> 683
tttgaancct tttgnactct anaatacaag ctacttgttc tttttgcagg atcccatcga 60
ttcgaattcc gttgctccat ggtctactgg catgcactgg actctggaga tgcctcccca 120
gtacaggctg tgtttgcccg gggaattgct gccagtggcc acttcatctg tgtgggtgag 180
ggagccaagt gcagggcatg gaggggtgct ggggcatgtg ggctgtggcc agganaataa 240
tgagggcctg aggaaattgt ggaaagttac agggaagggt ggaagtggag tggaatcaca 300
gactccagta aaccatggaa gggttcagag ggtcagggtg ggataagaca aggctagtga 360
atgaaggggc atggccgttg gagcagtgag agggggtttt gttactaagg tttctgggat 420
ggagtaagtg ttgagtatgg tggctggaga cccaggaggg tcaggaagtc atcactgnag 480
tactggt 487

<210> 684
<211> 428
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(428)
<223> n = A,T,C or G

<400> 684
ttgagnnctt ttgtgnactt agaatccnct cnnggacttt ntgcaggatc cctccnttgc 60
tntnnngcna ccggngnttg agtgctcata gtacatctgc aaccgcgacc atggtcggga 120
agaacaagca gcgaactaaa gggaacctga ggccttcaaa cagtggccga gctgcagaac 180
tccttgccaa agaacaggga acagtgcctg gatttattgg ttttggaaca tctcagagtg 240
acctaggcta tgttcctgct attcaaggag ctgaagaaat tgacagtctt gtagattctg 300
atttccgaat ggtgctgcgg aaactttcaa agaaagatgt caccacaaaa ttaaaagcta 360
tgcaggaatt tggaaccatg tgtacagaga gagacacaga aactgtgaaa ggagttcttt 420
catattgg 428

<210> 685
<211> 339
<212> DNA
<213> Homo sapiens

<400> 685
agttcgtgtt tgtgtggcgt ggctgccttc catcagcaag tttgagtgtt gatgtgaggc 60
caccctcttt tgaaatggat tgtggtcggt ttggaatagt tacacagtgc tgtgccattt 120
ggtaactcca cacatgtacc gaaaggtgag cccacagtgg aacgctcctc aaccaaagtg 180
gtttaaagtt gcagaaaagg gtaattgtgc tggttggtgt gtgtgctgaa tttgtagcga 240
catcagagtc aagcattatt tgtcctgctg ctttcttgga ggtcacagta actataaaac 300
cgtgagccag caaggcagag aggacccttt ggggtaagg 339

<210> 686
<211> 440
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(440)
<223> n = A,T,C or G

<400> 686
gctccgcccg ggatgggatg tggcgccttt ttccgctcgc cctcgcgccc cccccgcccc 60
gcgcagctaa attccggcgg aggggcgagc tggcaggccg gctcctccca ctctgggcag 120
cggggtcccg cgtcccctcc cccactattt ggcagcgtct gggggtctgg ggcagcttcg 180
ttcattcacc cgggggagtt gggtttccgg gaagggtcgg aagctcctcc ctcgcttcct 240
ggtgggtaat ggggtgggtg cctttgactc cgggggtgga aaagcgaccc cacattcaag 300
gacgccaatg gcatgttgag ctttcccaat ctaaaccagg tgcgtggagg gaagcaagtg 360
cttactccca gcttgaaccc tgagcagcgg tctctaactt tagtgtcctg tggccanacc 420
tggaagnggg taagaacctt 440

<210> 687
<211> 423
<212> DNA
<213> Homo sapiens

<400> 687
gggtaggaca aggaaggagg gggtgagttt agcagccagt tggggaaagg atgcttgcag 60
agtgtcagtg taacttggat tcccactcat ctcttctctc tcccaaggat cctgaatcaa 120
cgtagtgtga agggacaaga gtgagcacct attgatcacc tatgataggt cagacactgt 180
ccaaggctcc ttctctacac tggctcattt aatctttaca tctcactata gaatagatgt 240
accaggtgtt ttccacatca acgaccacca cgcgccccat ccaccccacc cagatgtgtc 300
tacaccctca gatttcactt gaaatgttcc atccttagtg cagccttccc cagcccctca 360
gaccaggtta gatctccctg tcctatgttc ttatgtcccc tatgctttcc ctccatggac 420
tta 423

<210> 688
<211> 408
<212> DNA
<213> Homo sapiens

<400> 688
attgtgtttg catgttatat tacttgatac tctaagcata ttacaaagtt ttcccacatg 60
taaaccccgg aaaggtagtg ttcattagat ttttgtggca gaaattttaa tgaagtgtta 120
cgtactggag aggtttcata agtatatact tattttatta ttggcatact ctattgaaag 180
gggttttgct gtagctgtta gaaacaacta tatttgacat aagaatatgt atgtatttta 240
agacataagg ttaatagggc tgacaaatat gagaaccagc tgattggtta gagtcgtggg 300
aaaacttata acttgggatg tttctggttg tctagttgta tttcttggag gagaagccgt 360
gtgatgtaaa tgccgttgtt taacaccact ttgagaccag agctgggt 408

<210> 689
<211> 407
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(407)
<223> n = A,T,C or G

<400> 689
gagcaagaga gaagacagtg ggtgaagtcc tggttccaga ctccccttttt tgccgggata 60
tgatggatct gtcagctggt gcctagagtc ctacagagct agagatggag ggaaattcag 120
atcatctaaa cccttcagcc cttcactgga cagaagagga aactgaggct ccatctgcat 180
gacgttccca gagtcacggc acaaattcat ggaaaaagca acaggaaact cagttctcca 240
cactgggtcc aatgtgtgtt ttaaaaatat ctccacaggg ttaatgactc aatttttcat 300
gcatgattgc tagtaatgac aatcatgtta tgtttgtttc tgtactttgg aaatcactcc 360

ttcacttgag tttcaggtcc caactgncca cacctgcagg aatgagg 407

<210> 690
<211> 410
<212> DNA
<213> Homo sapiens

<400> 690
gcttctcatc ctcatggtct agtgtggctg caccggctct ggccctcata cctcccggca 60
ggaagccttc ttctaggtga agaagagcaa atccccacct ttcaaggacc ctcactgcaa 120
gttgtccctg tgactccgtt tgtgtcccat tgagtacgac gcttccctgc acaggatgct 180
aggacacgtt gtctttattc cgcacacagc tgaaatttct tactgagaag aggaaagttg 240
ctgttgaaca aaaactagca acctcagcca gtcagtgacc gaggggcagg gtaagaagag 300
atgaagatgg aggggcagcc cgaggccggc tcccagagcg ccgcgtgacc agagcggacc 360
ctggagtacc gtcagtgcag gaggacgtgc ataggagaga tcagagcaga 410

<210> 691
<211> 407
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(407)
<223> n = A,T,C or G

<400> 691
gcaacagcca caggcagact gaggtggcaa taggaaatct gccgagatgt tcagtcaggt 60
gcccaggacc ccagcctcag gctgctacta cctaaattcc atgacacctg agggccagga 120
gatgtacttg cgatttgatc agactacaag acgctctcct tacaggatga gccggattct 180
agcacgccat cagctagtga ctaaaattca acaaggtgag tggccggcag tggaaggctg 240
ttgctcattc tgattactgt tggctctatt tcatgctaac ccagtttttt ttgtttgttt 300
gtttccactt tataacatat ggatttctat gccacactac ccgtagcttt gaaaaataac 360
tttangctgn agttttcagc aaacaggaca gtccttanct gccacat 407

<210> 692
<211> 408
<212> DNA
<213> Homo sapiens

<400> 692
attcaccatt atgagaaatg cttccagtca caaaaatgca gcccagctca ctctgaggaa 60
gaagcaggac ttggtacggt tttacacaac tccttaccat taaactgaat cagaaatcca 120
ttttctggct gaataaaaag tttggcttgc ctgtgtaatg cccactccct tccccctggc 180
tccctagtga tgggacatat atgagagaga agtgtttttc tatcatagac accacagggg 240
aaagtttggg gatgaaggag agcttaaagg tgtttcaatt aagttagaaa actgacacag 300
gctgttgaga attctttgca cttttcccac cccaaaacag catggggcct gacatcttct 360
gccctggtcc cctttctctt gatgtggaaa gtctgaatgc agtattta 408

<210> 693
<211> 424
<212> DNA
<213> Homo sapiens

<400> 693
aaaacgccgc tttgactgtg ccttgttctc acagctggcg ggaagcaagc gccttttcga 60

aagccagagg ctcgagttac ccctcttacc accgtcatgg cagtcccagg ttgcaacaag 120
gacagtgtca gagcaggctg taaaaaatgt ggctaccctg gtcacctgac ttttgaatgc 180
cgcaattttc tccgagtaga ccctaaaagg gacatagttt tggatgtcag cagtacaagt 240
agtaaagata gcgatgaaga gaatgaagaa ctgaataaat tgcaggcatt acaggaaaaa 300
agaataaatg aagaagagga aaagaagaaa gaaaaaagca aagaaaaaaa tcaaattgaa 360
aaaaaaaagg aaaaggtctt actcatccag ttccactgaa gaggacactt caaaacaaaa 420
gaac 424

<210> 694
<211> 386
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(386)
<223> n = A,T,C or G

<400> 694
ctccctacca gatgcaggaa ctcctggact ccttggtggg ctggccctgg ctagcccttg 60
ggcctcggag atgatcagag gtgaagaacc gcctggaaga ggaaggccag ggtttggcca 120
ggagaactaa gaaggtctca actccaggct ttgttgtgtt taagctattg agagccccag 180
gccacaccag gacttgcagt ggtgggaatc cattcctctt ctgccctgtg ttgcagggaa 240
ctaggaggta agggngnang gccancnttt cnctccttgn tggcggngga ccatncnata 300
cctgcttttn ttgatggcca ancagtatna acngnatcnt gagcgnnctn naangngncn 360
tgncaggnac ntaactcntn nctctc 386

<210> 695
<211> 389
<212> DNA
<213> Homo sapiens

<400> 695
ccaggctgga gtgcagtggc acaatctcag ctcactgcaa cctctgcctc ccaggctcaa 60
aggatcctcc cacctcagct tcccaagtgg ctgggactac cggtgtgtac caccatgcct 120
ggctagtttt aaaatttttt gtagagacaa gttctcacta tattacccat gctggtcttg 180
aactcctggg ctcaagtgat cctctaagcc ttggcctccc aaagtgctgg atttgcaggc 240
atgagccaca ccactcctgg ccctggttgt gttttctaag ctagactctg tgcttgccag 300
caaagcttca tgacttctct aaaggggcaa taagtttgcc tttagagaag tcagggagct 360
atattcaggc atccagccca accagttgt 389

<210> 696
<211> 387
<212> DNA
<213> Homo sapiens

<400> 696
gagatttcct actaaccatt tgcattggga cagtgaggct gggggaggga ttcagtgaga 60
gattactgaa aaaatgagta tttatcacta cagaaaggtt aatttgcttt tcaccgttta 120
aactttttaa aacatggtct tttatcagaa ttggcatttt gagaagaggg tgaactgagt 180
taaacaatga agcaattcta gagctctgtt gtccagtgtg gcagccacca gcaacatgtg 240
gctatttaat tttaagctat ttatggccag tgcggtggcc cacgcctgta atcccagcac 300
tttgggaggc tgaggcaggc aggtcacctg acttctctga ggtcaggatt tccagaccag 360
cttggccaac atggcaaaac cccatct 387

<210> 697

<211> 402
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(402)
<223> n = A,T,C or G

<400> 697
aagaataagc tgggcacggt ggctcacacc tgtaattcca gcattttggg aggccaaggt 60
aggcggatca cctgaggtcg ggagttcaag accagcctga ccaacaggga gaaacctcgt 120
ctctactgaa aatagaaaac agttagccgg gcgtggtggc acatgcctgt agttccagct 180
gcttgggagg ctgaggcagg agaatcactt gaacccacga ggcggaggtt gcggtgagct 240
gagatcacgc cattgcgctc cagcctgggt aacaggagtg aaactccgtc tacaaannaa 300
aaaaaaaaan gnattnnntn ncgnnnaaaa aaaaaaaaan aaaanncgng naaaaaaaaa 360
aaannaaaaa aaantgggaa anaaaatttt aagggccggc cc 402

<210> 698
<211> 389
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(389)
<223> n = A,T,C or G

<400> 698
gcctggagct aagtgccgag agcgaggccg agatggccga gtggatgcag catctctgcc 60
aggctgtgtc caaaggggna nnngtgnaag gtttnactnc canccccctgc atacnntgct 120
gcctggtcct cacggatgac cgcntntttta catgccatga ggattgccag accagcttct 180
tccgctcttt gggcacagcc aagctgggcg acatcaagcg ccgtctccac cganccgggc 240
aaggagtact gcgtcttgga gttcttccag gacagccagc agctcctccc gccctgtgtc 300
atctatctga gctgacttnt gaactggacc gattgctgct gcactgaact ctgggtggaa 360
aaccatttat nangtggacc tccccacac 389

<210> 699
<211> 391
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(391)
<223> n = A,T,C or G

<400> 699
ggggaaccaa cggaagccga agccagagct agagcatcta atgaagatgg tgacattaaa 60
cgtatttcta ctaaggaatg ggctaaatca actggatatg atccagctaa actttttacc 120
aaggttagat ttactttttt ttataatcat ggatagatgt attgttgtgc atagatgtat 180
tgctctagtt ctgcttgttt taaaatagcc cataaaattg aattaagctt ctatgtatat 240
gccttgtgat gtcctaataa aatgattgat gccgtccgga tatgcaagtt ttaaaatgtt 300
accatctaca ctaagtctat cagtatagca tctaaatagg aggtaaaang agaggtggct 360
tgtataccttt nttgggnggc tttncttctc t 391

<210> 700
<211> 405
<212> DNA
<213> Homo sapiens

<400> 700
gattgtggga gaggtgggtg ctgtgaggga gtctgctgtg actggactgt aacaggattt 60
acttgagaat ttgaggtgtg ttgggggcag ggtcaggagc aaaggcttgt ttcccctact 120
cagcggctgc tgctgcaggg ccgggcaaca gtggaggtca tgcaggaagg gtgttcgctg 180
aagaccgtgt tctgtgactt gaagatgggt gttcctcccg tgggggtgga atggagactg 240
gacgccgtgt ggcttgagag tggcatcctg cgtgaccttg cgtgtagtgg gcttacagca 300
gagctagtcc ttcctctata gattcttttc atagtttgcc tgcctttaga ttctctgatt 360
aacgcatctg aggtgggtcc caggagtctg ccacctgcca gccag 405

<210> 701
<211> 408
<212> DNA
<213> Homo sapiens

<400> 701
aagaaaaggc ttaatggtta ggatttttaa gtattcccaa agatctgaag ggtaataaaa 60
tgtactggat tttttaaggt ggtaccaaaa atgaatgtct gtcatatatt tatattacaa 120
atacattata tttatgttct attcatcttt tgaatgttta gtatgctatt aagtcattct 180
gaatctttgt atttgctttt gcaaataggt atttcaaagc tcttttccta actggttaag 240
taaaataaaa aattgagctt tctagaatat ttgcctaatt gggaattaaa aagtaaaata 300
ataggccagg catggtggct catgcctata agcaccctgg gaggccgagg caggcagatt 360
atttgagctc aggagtttga gaccatcctg gcacatggcg aaacccta 408

<210> 702
<211> 383
<212> DNA
<213> Homo sapiens

<400> 702
gcccctgtgg agggcagccc cgacaggaag cagtcccgct ccagtctgag catagccctg 60
agcagtgggc tggagaagct caaaacagtc acatctggga gcattcagcc tgtgacccag 120
gccccccagg ctggccagat ggtggacacc aaaaggctga aggactcagc tgtgctggac 180
cagtcggcca agtactacca cctgacccac gatgagctca tcagcctgct cctgcagcgg 240
gagcgggagc tgagccagcg ggacgagcat gtgcaggagc tggagagcta catcgaccgg 300
ctgctggtgc ggatcatgga gacctcaccc acgctgctgc agatccccccg ggccccccca 360
aatagccttc tcaccctacc cca 383

<210> 703
<211> 393
<212> DNA
<213> Homo sapiens

<400> 703
gcctttctcc ttagaggcca gaggtgctgc cctggctggg agtgaagctc caggcactac 60
cagctttcct gatttcccg tttggtccgt gtgaagagct accacgagcc ccagcctcac 120
agtgtccact caagggcagc ttggtcctct tgtcctgcag aggcaggctg gtgtgaccct 180
gggaacttga cccgggaaca acaggtggtc cagagtgagt gtggcctggc ccctcaacct 240
agtgtccgtc ctcctctctc ctggagccag tcttgagttt aaaggcatta gtgttagata 300
cagctccttg tggctggaaa acacccctct gctgataaag ctcagggggc actgaggaag 360
cagaggcccc ttggggtgcc ctcctgaaga gag 393

<210> 704
<211> 367
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(367)
<223> n = A,T,C or G

<400> 704
gccaaggact gaggtttctc tggacttgtg agagcgacat gtgcagcacc tgggcaggcg 60
tgaggggtgg acttactttg tggaacacat gggagcatga aagcagcacc tgttcatgag 120
gaaacagaac gacgttgaag tttacaaaag agaagcagca tgtatccaac agttaaaatc 180
ctgaatgctt agaagggaaa gtgtgctcac aagaaaactt cacctttctg tgacccaaat 240
tcccactaa acagtgatat actgggctgt gacaaaagac tgaagcttag accaaatgaa 300
gaagaaggca gtgggtactt aatagaaggg acaggccgcc agcccaccag cgccagggcc 360
tgngggc 367

<210> 705
<211> 377
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(377)
<223> n = A,T,C or G

<400> 705
aactggagca aggtggtgag ttcaggctca gacatgaacc tgggaaggcc cacagcctgg 60
atgcacacat ggcctggggc tggatgagtg tggacctgag ctgaagtggg gcctggcagt 120
caccattgag gatgaatttg cccaagctag ctgggcagag tgacagcaaa gggtaaaggt 180
agaaccttca ccctatggaa acatccagag cattcactca ctcaccattc attcattcat 240
tcactcactc cacaaatcca cggtgagccc cttctgcgct ccaggtagtg ttctctgtgc 300
aggggcatta gtggtaaggg cctgtctcct ggagctcacg gtctatggca gaaactgcag 360
tgaccaccng acatcat 377

<210> 706
<211> 407
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(407)
<223> n = A,T,C or G

<400> 706
taggatcctg gtgggcggtg ggacttgggt tcaaagaaga ccaagcaggc agacgtgttc 60
gggggcccgc gggttccgag actggagact ggacctttgg ctgtccccac gtgcattcta 120
ggtcaacggt gcggtggcag aaccctgggg ctctccccg cggaactcgg ccctggccga 180
ggccccaacc acgctagtag gaggaggccg agcatccctc ctcgaaatcg cgaaatcccg 240
gcccgacaat gtagccacgg agtcgaaagc cgcgtgcgaa cttggcactc acaaagccta 300
gataaccgtc tattttctcc tgtaaaatan gagggatgga cccccacaga tcattgtaaa 360
aggtcttaca aagaaaaatc cttctggact ggcacggtgg ctcacgc 407

<210> 707
<211> 392
<212> DNA
<213> Homo sapiens

<400> 707
gtatttggaa aattggttca agctgggtat gagacataag tgtagtcagc tctgggagaa 60
ggttgctctt aaggagaagc agggacctgt ggtttagcag caggaagtgc aaatgggact 120
ggcttgtgct ctacctggca gacctggatt ggcttcaggc agccagtgcc tggaaaagcc 180
tggagaattg ggccgtactt gaccctgatt ctcatcaggc acagatgaat cacaggcacc 240
taagaatcgg cacagaactt ccatgaggcc tcagtcagca tttttcaca aaatgagctg 300
aggccattca aggaggctag aaagagggaa ctgaatccag agaggaagag tctatagtca 360
tcaagttgta tccatgccag cctccctcca ca 392

<210> 708
<211> 401
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(401)
<223> n = A,T,C or G

<400> 708
gggagccaag gcctgccagg gagaggctct tggagtggcc cgaccgggaa ctggatcggg 60
tcaacagctt cctgagcagc cgtctgcagg agatcaaaaa cactgtcaaa gactccatcc 120
gtgccagctt cagtgtgtgt gagctcagca tggacagcaa tggcttctct aaggaggggg 180
ctgctgagcc tgagcctcag agtctacccc cctcaaacct cagtggctcc tcagagcagc 240
agcctgacat caaccttgac ctgtcccctt tgactttggg ctcccctcag aaccacacgt 300
tacaagctcc aggcgagcca gccccaccat gggcagaaat gagaggcccn nncccnccat 360
ngnccgaggt gagggggccc ctccggtatc gccccgagaa c 401

<210> 709
<211> 382
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(382)
<223> n = A,T,C or G

<400> 709
attctgtgga caccgagtcc agcctccggg aggacgctga gggaaccttt tgggacagcc 60
agggcagaga acgcctttta cttcttaagg ctctggatca aaacagagaa gcttctgttt 120
tggagcctgg caatcctcga acatcagtgt gcattttaag ccataaagcg caatactgat 180
tacaaacagg aatacggagg gcttccttta aactgcttca agaaaacaaa ctcctcgggg 240
acttccgaaa ggagctctca ccatagctcc tgcaatccac tctgaacagg aaaccttctc 300
atctatttat taaaactgac cccagaaaga ttttcaacag ggaagcctgg ctttatgttg 360
nggtatagcc ncaanagaaa ga 382

<210> 710
<211> 408
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(408)
<223> n = A,T,C or G

<400> 710
gccccccagc ccgagcgggg aggcgagcat gagcccccga gccggccctg tggcctcctg 60
gatgaggatg ggagtgagcc cctccctggg cccagagggg aggtccctgg aggcagcgct 120
cactatgggg ggccctcccc tgagaagaag gcaaaaagtt cctctggggg cagctccctt 180
gccaagggcc gggctagcaa gaaacagcag ctcctagcca cagcggccca caaggattct 240
cagagcatcg cccgcttctt ctgccgaagg gtggaaagcc cagctctgct ggcatcagcc 300
ccagaggcag aaggtgcctg ccctcctgtg agggggttca gggacccccg atggccccan 360
agaagtacac aggggaggaa gatggacccg ggggacattc cctgccct 408

<210> 711
<211> 357
<212> DNA
<213> Homo sapiens

<400> 711
gggtgttttg ctggagatca gtcaacagtt ctctgaagca gtgtcgatgg gcctatccac 60
gtcaggtctt catttctgat attgctttaa atagaaatga aattctattt gttacgcaag 120
atggagaagg atttagaggg agatggtttg aagagaaaag aaagagttct gaaaagaaag 180
agattttatc aaaccttcac aattcctcat cagatgtgtc ttatgtctct gatataaata 240
gtgtgtatga aagaattcga cttgagaaac ttacctttgc acatagagct gttagtgtca 300
gcacagatcc aagtggatgc aactttgcaa tcctgcagtc agatcctaaa acaagcc 357

<210> 712
<211> 353
<212> DNA
<213> Homo sapiens

<400> 712
aacatgttga aatgtcacat tagtagtaaa gtggggttta tttatatagt ggttaagaaa 60
tgtcagttta cactgctgta tacttcttct tctgtgtccc taaggcctgg tacagtgcca 120
agcacatact tggtatccaa taaatatttg ttggatgaat gtatgcatat gtattcagta 180
tattttaaat gaataatcac agaagtaagt ttaatatttg tcctattttt ctctgtcact 240
tcctttttct ctaaggcagg aaaggaaaga cattaaacca ttaattaagt caatcctctt 300
ggagactcaa aagactatga agtgatcact ctatataaaa tataaataca gtg 353

<210> 713
<211> 355
<212> DNA
<213> Homo sapiens

<400> 713
gcatggtcat ttgtttggga ggtaatgata ggagcagaaa tgaaaaatct ttgagaagat 60
tgtgaaattg gaaagtgtgg agttctagaa cagaataaat tctagagtta gaggaggtgc 120
tttttcatga atgggtgtac cgtgtgttga gagagtggag tgagaaatgt acttctttga 180
tctgtttcac atagaagcat gtatcatata gaaattcagt ggtggccggg tacggcggct 240
cacgcctgta atcccagcac tttgggaggc cgaggtgggt ggaacacttg aggtcaggag 300
ctcaagacca gcctggccaa catggtgaaa cccctcctct actaaaaaat taact 355

<210> 714
<211> 385
<212> DNA

<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(385)
<223> n = A,T,C or G

<400> 714
aggtctttgg ccttcctctc taaattgtga tttcctacag agtaaggctt cttatctttt 60
tacctagcat tattggtgct catcaatatt aagtgcatta agtgcattga actcatgcat 120
tcatgagact aagttttagt taagtgttaa ttgcagaaaa atttagtata gtaaaatgaa 180
agtttattct gttctgtggg acactctgag ccaccagggt catagattat tttaagttgt 240
ctgtgccttt gctgataggg aactttgatg agcaaagagg aacctggtag tggtagagga 300
ttgtgaactg gcctgtgntc antcatcatt gganatttan aattgacngc tcnngggtgg 360
ntcccattta naanacttnt gattt 385

<210> 715
<211> 348
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(348)
<223> n = A,T,C or G

<400> 715
aaaaaatatt gtttccttaa tggaattctc acttcatttg aatataagat tttggatgaa 60
aggatttggt ataaagtttg ggtttttgtc tcaaggattt gatccatatt tatccctaaa 120
tatttcttaa gggatgtaac tttttataac cattaagtgg ggggaagggg gngnagnggn 180
tgnccntnnn tataactgna agggnantnt ctcctatgaa aancctnctt ccccnacttt 240
actntgnntt tactngngan nccctanana ttntngaatc naantttngc ccccnnanna 300
anatanattn nnntnnncnt ngnngnccaa nncannaatt ntngttaa 348

<210> 716
<211> 383
<212> DNA
<213> Homo sapiens

<400> 716
gcaggcctca tgggaggatt tgatgaagat gttaaagcga aagtggagaa ccttctcggg 60
atttccagcc tggaaaaaac ggaccctgtt aggcaagcac cctgcagccc tccctgtccc 120
cttcttcccc tccccttccc ccgcccgtgg agacagctgt tctcagcagg gctctccgca 180
gggagggggc cggctccttc cctggcagca acatccttgc ccttgtcaca caagtcagcc 240
tccatctgcg cagctctgtg gatgcgctgc tggagggcaa caggtatgtc actggctggt 300
tcagccccta ccaccgccag cggaagctca tccacccggt catggttcag cacatccagc 360
ccgcagcgct cagcctcctg gca 383

<210> 717
<211> 348
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(348)

<223> n = A,T,C or G

<400> 717
gtagaaggct cagtttctct gctcatcaca cggccttcgg cactgtagct ttgggtggtg 60
ggctgcagat taattttgta accaccttaa gaaaaatacg gtaaggtgat atttaagaaa 120
aatatttgcg aaatgcgctc ccgagtcaaa catcggttga cttgacacta ctacagtttc 180
catcacagtc aggcatgatc gattcaggtg gagggagttg aagattgttc ttgatgaact 240
gaatgcagct aatacatttt cagtgccgtt gatgcctcta tgactccgta aaataatcgg 300
aactctaact ccttgccact caagaaatgn cctccctttc agaatatg 348

<210> 718
<211> 379
<212> DNA
<213> Homo sapiens

<400> 718
gtctggatca tattttcaac acagggcaca tgagacagtt gaccatgatc atcaaagacc 60
agctgtgatg agagaaaggg tttctgcctt ggggcctgta aaaaaaaggg tcaggaaagg 120
tcgaggggct agatgtcagt atacattcct cagcatctgg ccctggactg cctgccacct 180
ccacacatgc cacccaccac ctcacttgaa ggatgttggc cacaaaagag gttatctgct 240
cttccaagac agaaatgagg ctctgacaaa tcatgtagtc aaccaggcgg gcaaactttc 300
ccagctgcag ccaccaggcc tctgcttgct tcagcttctg ctccagttgc ttgtgctgta 360
ccctctgaag gtatatgga 379

<210> 719
<211> 386
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(386)
<223> n = A,T,C or G

<400> 719
ggtctgcctt gcctagttga gcctgtgcac tctgtctctg cctcccttca gatagggaaa 60
ggagcttcaa attacggggt gatgtcatag cacggagtgg agatggggtg gcagggagac 120
agggaggctc agggtctctg gcacacattc ctcccagagc aactgtagga agcaagccag 180
tacagaggta ctctaagcgc tagacaggac gggggtgagt tcgtaacatc gtctcctctg 240
ggctggccct gcttctgctt agctctgggc ataagactga ctccagtaca gtcacaatta 300
tgtctctgag ctcacccagt cctgggttca ggttcccanc tctgacctgg cgagacacac 360
acangctggt gctgngggat gcttgg 386

<210> 720
<211> 344
<212> DNA
<213> Homo sapiens

<400> 720
gcggggtacc agcagagtgg atgacaagcc cagctcaccg gggacagct cgaagaagcg 60
aggcccccaag ccccggaagg agctcccgga cccctcacag aggcccttag gcgaacccag 120
cgccggcctc ggagagtacc tcaagggcag gaagctggac gacacccctt ccggggcagg 180
aaagtttcca gccggccaca gtgtgatcca gctggcccga agacaggact cggacctggt 240
gcagtgtggt gtgaccagcc ctagctcagc tgaggccacg ggcaaactgg ctgtggacac 300
cttcccggcc agggtgataa agcacagggc tgcttcctgg aggc 344

<210> 721
<211> 355
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(355)
<223> n = A,T,C or G

<400> 721
cagaaattcc tgttctccct gagccagcat atcaactggg tccgctgtgc caagttctcc 60
cccgacgggc ggctcatcgt gtctgccagt gatgacaaga ctgttaagct gtgggacaag 120
agcagccggg aatgtgtcca ctcgtattgt gagcatggcg gctttgtcac ctatgtggac 180
ttccacccca gtgggacgtg cattgccgct gccggcatgg acaacacagt gaaggtgtgg 240
gacgtgcgga ctcaccggct gctgcagcat tatcagttgc acagtgcagc agtgaacggg 300
ctctctttca cccgtcggga aactacctga tcacagcctt cagtgactna accct 355

<210> 722
<211> 339
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(339)
<223> n = A,T,C or G

<400> 722
ggtgcccata acggggtggg cctgccgctg actcgggtct ccgccatgca cgcgtggact 60
ctcggatgag ctcagcagaa ccgcacagcc agagccccag gtcagaagtg cagaccaggg 120
ttctcagcac agtgcccgtc gtgcttccat ggcttgctac ggagagagac ctctggatcc 180
acactggggc tgcgtctggc ccgttgtcca gcaaccctgc ggtaccgcaa gcccatgcac 240
canngtctcg gggganttn ctgatgngct angagnannc ccncganntt tgtnnangct 300
aatnnnnnca ngcanntntn anctttctc natnngcgc 339

<210> 723
<211> 308
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(308)
<223> n = A,T,C or G

<400> 723
aaggagcggt gccagactgc tgggaacccg ttctttgagc gttttggcat tgtggtggca 60
gccactggca tggcagtggc cctcttctca tcagtgttgg cgctcggcat cactcgccca 120
gtgccaacca acacttgtgt catcttgggc ttggctggag gtgttatcat ttatatcatg 180
aagcactcgt tgagcgtggg ggaggtgtgg gaggttttnn nnnnncttnt nannttnnnn 240
atntnaacat gannctgntg nncctgctgn cccgctgntt nacccctggn gangcactgn 300
tgnnattg 308

<210> 724
<211> 259

<212> DNA
<213> Homo sapiens

<400> 724
aagatggaga aaagtagaat aaaaaagacc atcttttgtc accatcgttt cataaaagca 60
ttttaactcc ctaaaatata agtgggacta tctcaaagaa cactgaacaa tccattaaat 120
tgaattctga tggttaacag atgaaaaact cacactgtcc ttgttttgtt catccgttca 180
gcttagacct gtgaaaattc tattgcccat cattgaggtc cagtttttgg gaaaaagtaa 240
tgtataaaaa aaaaaaaaa 259

<210> 725
<211> 450
<212> DNA
<213> Homo sapiens

<400> 725
gaaaaagttc tcctcttatt tggggaatgg atttcagaag agaccagaag atgttctcgt 60
gttctcacca cagggaaggc agaagcacag agccccacag gctaagaaaa tgagagcatt 120
ggcaacccgt atggcccaag acacatgcaa aagcaagtcc caggtgcctc cttcacatga 180
tgctggcctc aaagacccca tgaagagcaa aaagcagcca ctctctcaaa ataacagaac 240
tgcctgcttc ataaaagagc aaccacaagc ccaagagaaa gattctgtga atccatctaa 300
ggacgtagac cccagcaagg gcatctctgt tccatgccaa aatcaagagg tttccaccaa 360
caccatagaa caaggtccta gttccagccc agctagtgat agtggaatgg catgtgctga 420
tgagaccaga tcaaaagatg ttgttttaag 450

<210> 726
<211> 418
<212> DNA
<213> Homo sapiens

<400> 726
aggcaattct gctatgtttg ttcttcacta tgatttactg tgtgccaaag gagttttgac 60
agggtacaga gtattttact aaaagtattt ttaaatgttt ctcatgtgat ttctgtacct 120
tcttcctcct gccccttttg ctttttaaa gaaactgggg aaggatttat gaatacacca 180
ccaccagagt ggataatgct tagaattctt tattggtggc cctactatgg tgatgatcta 240
gaactgactt acttcaggac agaagaaaaa acaatcacac ccttaacctt taagccagtt 300
agatcagggg gttgcaacaa ttgggttaaa ctttgggtat acattggaag caccagggca 360
tgtttgcttt ttttgtttat gtgtttgttt tttgagacgg agtctcacac tgtggcca 418

<210> 727
<211> 415
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(415)
<223> n = A,T,C or G

<400> 727
gtggaggctg ccaagcctgg attccagccg gctccaaacg ccaggctgag gaggctttgg 60
actttgtcca gtgtcaccac aggcttctgg gcagagctgg tccaatgggg gttgggggac 120
agtggcatac ctgacatcaa cccctgggtt attgacatca gcccctggaa tgcattagtg 180
atgcattcca cgggcccagg ggtcatccac tgccttcggg tcaagcaaat ggccagtagc 240
tgcccaggct gatagaggtg tgtgttggag gggggcacag gccactggcc ctcggccctg 300
gcctggcagc agggaggcct cagatcttag atgcctgaga gctaccccaa gaagggtctc 360

ggcacagcta tggtccccat gcctagtggn gctgggcctt ctnggtgctg cagat 415

<210> 728
<211> 408
<212> DNA
<213> Homo sapiens

<400> 728
atttttggtc attattgtct aaacaataca gcttaacaac tgttttcata gtatttccat 60
tatattaggt attataagtc tagagatgac ttaaagtata tgagaggctg tccataggtt 120
attatgcaaa cactacgcca ttttctatca gggatttgaa catttgcaga ttttggtatc 180
cataggatgt cctggaacca gtcccccact ggtactgagg gacagctata cttaaagact 240
aatatatatg ctctgttttc ctttagagta cttgactcta cacatttcct atagctttga 300
agacttgtct tccttgaagc agactaaaag ggggacagat gggaggatgg gaagaaccac 360
acttccataa tcttagaatt attccttcct tgctatgctg acaaaggg 408

<210> 729
<211> 407
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(407)
<223> n = A,T,C or G

<400> 729
caaatcacag cattaataac agtgccctaa ttatgagctg caataattgc tttccagagt 60
tagacttcaa atcactgagt agctgactta ttaaaagttt ttattgttct gaaatgtaaa 120
ctaatacagt tacttgtaga ttgctgatga agtgttaata ttgagatgtc ttaattgggc 180
ctcctggcat tctttgaatg aaatgatttg tggctcaaaa atgctgcggc agcaganacc 240
ataaanagca ctnnancata gatggccttc naganaaacn naatatccat nggngncaan 300
taacgannac cccatagant gcannncgga gaaanacccc ngngaatgnt nnnaaacngg 360
gaaacancct ccccnannga nanctttccc cacgcancng ngcgcac 407

<210> 730
<211> 406
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(406)
<223> n = A,T,C or G

<400> 730
tatacacata aagtttaata gttaatgtta ccagattccc tggtaagatc ttaaaatgag 60
cttccttgtg ttctcaacaa cattgctact aaaaacgaag tgtggaatat actcttcaga 120
tagcagcaaa tgttttgtca tttcctttgc ttctgttgat tttcaaaagt ttacctcctt 180
aaaatacata aactattgtg ttgtagaaga ttccacatga tgaagggcat taattttctt 240
gtgccactgg tgccagttga tcagaccaac ctaacatgcc tcagtttcat gcatattctc 300
acttgttttc cttctgaata aaagttattc taaatctttc tcttgacttc tttgtttagg 360
ggagtggtct gaacctgctg tgcttctacc tacttgatag gngagg 406

<210> 731
<211> 407

<212> DNA
<213> Homo sapiens

<400> 731
aacccatagg aaatatgatc ctgaggcacc gaggatggtt ataggacgtg gtctgctgct 60
gcatgttgca ttactgtatg ctgggttttt ggtactcttt ctcaaggctc tgttattagt 120
tggtaggctc cagtaatgaa tatagaggac tgacagagtg ggattaactt atttgcaatt 180
gtttcctact gaaatcaaat gcacggtttt cccaatttaa gacttggtcc cttgtacctt 240
gatttgattc agaaagccat ctgtgatgtt tttgtttcct ggcgcctgca ggaaaactca 300
tttgtcatga gttacaatta ccttgcagtc attgctatgt ggttgtagca cactcattgc 360
taaaaatggt tatgagtgca ccttaatcca tgagctcaac tgggtgc 407

<210> 732
<211> 401
<212> DNA
<213> Homo sapiens

<400> 732
aacccatagg aaatatgatc ctgaggcacc gaggatggtt ataggacgtg gtctgctgct 60
gcatgttgca ttactgtatg ctgggttttt ggtactcttt ctcaaggctc tgttattagt 120
tggtaggctc cagtaatgaa tatagaggac tgacagagtg ggattaactt atttgcaatt 180
gtttcctact gaaatcaaat gcacggtttt cccaatttaa gacttggtcc cttgtacctt 240
gatttgattc agaaagccat ctgtgatgtt tttgtttcct ggcgcctgca ggaaaactca 300
tttgtcatga gttacaatta ccttgcagtc attgctatgt ggttgtagca cactcattgc 360
taagaatggt tatgagtgca ccttaatcca tgagctcaac t 401

<210> 733
<211> 402
<212> DNA
<213> Homo sapiens

<400> 733
gtttttccat gtcgtcattg agtcattcaa gttttatggc tctggatatt tgaaattatt 60
ttggacaccc aaatttggaa tgtttctttc tgaattgtga taacgccaga aaatttttga 120
gatcagaaaa gggcagttta tttgctttaa aataatacag cttttgtagg ggactcgtga 180
tacttgggca ttatttcctc tccacattaa aaggaaagca gtgggcagga aagatgcata 240
cagcacataa cctcattaca taatacaatg tttctttgga accagtagga atgagttgtt 300
ctggaaaaca atttgtagag gttttatcac ttttagctct ttaagattta tcacttttag 360
gccaggcgca gtggctcacg cctgtaatac tggcctttgg ga 402

<210> 734
<211> 398
<212> DNA
<213> Homo sapiens

<400> 734
aaaacgagtt aaatatttag gaggcttgac agctacctgc attgtagaac cttttcttat 60
ctcagtggaa ccttctataa cctaaatata ccattgatga ttcttcttcc attcagtgac 120
atccacagat tatgcagcta tacttgtgaa atcgtgcatg aggccccagg gcaccgttct 180
agaacaacgt cacttcacac aggcagctga gaaaggttct cttgcttttc cagtatcttc 240
ctaaggatgg agcccaaaat tgcagagcag taactttgga ataaaaccag ggtgggtata 300
aaacttctta ttcttaaatt tacatataag atctattaag cttgacacat ctgtgtcatc 360
acgcactgaa gacaggaagc agttcactga gtcagctg 398

<210> 735
<211> 397

<212> DNA
<213> Homo sapiens

<400> 735
gataaatatc aattttaatt aatactctaa gaacatacaa aaatggcaag ccctttacca 60
tcactgttta ttattgatgg caacaagtca aagctagata tattttattt gctttgagat 120
gatttttgg ttatgatttt atagccagca atgcttgtta tgcatccatc aacaaaaagt 180
tgttaaccac ctactgccaa agaaaaatca aaatgtcacc atcaaggcca tcatggtgta 240
agaaaacaga cctatactca ggcaacttca gttcagtatg atggatactg tattagaaaa 300
agtatctggg cgctttgtat gaggaaggac atgtcattgt gtggagaaga tgaagcttca 360
ctgaggagag agtgccctgg cagtcctaac atttgtt 397

<210> 736
<211> 388
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(388)
<223> n = A,T,C or G

<400> 736
aaaaaaaaaa actcccatga ttaaagttta cctacataac aaacctgcag ttgtaccact 60
gaacttaaaa taaaagttaa aaaataataa taataatttt tttttgtaaa natggggngt 120
tgntntggng cccaggctgg nctntcaaat tcctgggctc aagcaatcct ccgacctcag 180
cctccaaaag ngctgggatt acaggcntga gctacctcgc cagcctaaat acattnttga 240
atatgtanct ttgggaanat ttattanttg attaaggact aggaggtcca gctaaaatgc 300
aattggattt ataaggggct taaatcccca tttaagggat gaaatcaaaa atggcgaana 360
aatcantgaa ctgnggtctt aaaaaatt 388

<210> 737
<211> 383
<212> DNA
<213> Homo sapiens

<400> 737
ctctttcttt tctttccttt cttcctactt tctctttctt tctccttctt tctttctctt 60
tccttccttc cttcctttcc ttattctttc cttttttcct tctctttatt ttttctttat 120
tctctatctt gctctttctt tcctttctct gtctctggct ctttttcttt ttctctcttt 180
tttcttttct ctctctgtgc cgctctcttt tctcttttttt tctccttcct tccatccttc 240
cttccttcct tccttcctcc tgtccttccc agataaaaaa tattatctgg tcaaactgtc 300
ccatctgttt gggacaaagg agatccactg agattttgta caagacgtac atttttaaaa 360
aggaaggggg gtagagggca gga 383

<210> 738
<211> 384
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(384)
<223> n = A,T,C or G

<400> 738

gttttctgaa ttcagatata atgctttctt ctgctttttt tttgctgtgc tccaaatctc 60
agaaggcact gaagccagat taaaagttaa atgaacaggt gacatattaa agttacaggt 120
ttatgagttt ccccactcca ctgttttcat gtagctccag aaccttatag gataatggaa 180
gacagattca gtccaatgct gtttttcaga gtagaatcta tcatgttttt aaagttaaaa 240
attntcagng tacntattaa atacaagttt ttcagattta gaatttgttc ttntgaaaat 300
aagagtcctg aatgtctcct ggacagaaaa ccctggttct gggggtttta ggatccanaa 360
nacagcatgc ccanatgggc ttgg 384

<210> 739
<211> 386
<212> DNA
<213> Homo sapiens

<400> 739
aggaggtgac cctcagactg acagtgagtg agtccgagca tcagtggctt ctggagcaga 60
ccagccacgt ggaagagaag ccttacagag atgggtcggc agagccctgc tgatggctgg 120
gccttgtggg cagccactct gtgtgagcag ggtgttgggc ccatacactt caaagaccag 180
agccctgcac tgggagagtg ctcctggccc aggctgggaa tcacctttcg aggcccttca 240
gactctggcg ggcttgctg tggcctccct ccagctagtg gtgtggctga gcagactcca 300
gggccagggc cagttccctt ctccctcccg gccaaaccca gacccagact ctaagaagct 360
ggaatggagg gcagggatcc atggga 386

<210> 740
<211> 383
<212> DNA
<213> Homo sapiens

<400> 740
gggactggaa gcctgccatg gcggcttctg cggcggagac gcgcgtgttt ctggaggtgc 60
ggggacagct gcagagcgcg cttctgatcc tgggagaacc gaaagaagga ggtatgccca 120
tgaatatttc cataatgcca tcttcactcc agatgaaaac ccctgaaggc tgcacagaaa 180
tccagcttcc agcagaggtc aggcttgtac cttcctcttg ccgtgggcta cagtttgttg 240
ttggagatgg actgcacctg cgactgcaga cgcaagcaaa attaggcaca aaactgattt 300
caatgtttaa tcaaagctcg caaacccaag aatgttgcac gttttattgc caatcctgcg 360
gtgaagtcat aataaaagac aga 383

<210> 741
<211> 408
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(408)
<223> n = A,T,C or G

<400> 741
cagggctgca caggagcaag agtggaggcc ctgggtcagg cagatctaga ttcaaactcc 60
cgagaagggt ggagggaagt gctccaagca gagcagagac tgaaggcggg agagcctggt 120
gcaccgcgga cctgcagggg gaaggcgtga gagctcggtg cactggggac ctgcatgggg 180
aaggcgggag agctcggtgc actggggacc tgcatgggga aggcgtgaga gctcggtgca 240
ctggggacct gcatggggaa ggcgggagag ctcggtgcac ctcggacctg cagagggaag 300
gtgggagagc ttggtgcacc gcanacctgc angggggaagg cgggagagct tggtgcactg 360
cagacctgcg gggggaaggt gggagagctt ggtgcactgc acacctgg 408

<210> 742

<211> 400
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(400)
<223> n = A,T,C or G

<400> 742
gcacctccag agcatgaggc tctaagggga catgagtaaa gcatgtctgt gacccagtga 60
ggaagggaga ggccagctgc actcctgcac ggggttccta gctgcagaag ggtcccgcct 120
aggccgaggg gaaacacctg atagcagaag aggcctggat gcacacctgg cacgccgagg 180
ctctccgccc agacacagtg ctccatgtca gcccctgcac ctggggtgtg tgattcacgt 240
gcacagatgc cacaatcctg caccaatatc ccacagatgg gggaaggtga gaggaagggg 300
gaagtgatgt gtaactgctc aagagatgct taaacctcca tagagaggag ccgggcgcag 360
gggcatctgt gtgtccgtca cacactgcag canggaaggg 400

<210> 743
<211> 378
<212> DNA
<213> Homo sapiens

<400> 743
gggcctacgg ggcgggggcg gggcggcagt gagctcggcc ggcaaccgag ggacccgcgt 60
ccagatcttc agtgtctatt ggatttttcc aagagaaagt ttgtaaaatt ccttacactg 120
tagatgtgga tcagatacga tgattcagta gaagagcaca tgtcaggggc agtggaggct 180
ggctgctgaa ggatgaacgg agaggaagaa ttctttgatg ccgtcacagg ctttgattct 240
gataactctt ctggggaatt ttcagaggca aatcacaaag tcacgggaat gattgactta 300
tacaccagca aaaataatag gattgggaaa actggggaga ggcctctcaa gaaaacggaa 360
ttcagaaaca caggacat 378

<210> 744
<211> 403
<212> DNA
<213> Homo sapiens

<400> 744
gcaaaataca ctttcaaatt aagaatgggt ctgtgatgtc acatctagga gcacctaccc 60
atggacagac atgtcttccc atggaggagg ctttcgagct acccttggat gattgtgaag 120
tgattgaaac tgcagcagcg tccgaagtga ttaaatatga gtatcatgtc ttatattcct 180
gtagctacca agtgcctgta ctttacttta gggcaagctt tttagatggg agacctttaa 240
ctctgaagga catatgggaa ggagttcatg agtgctataa gatgcgactg ctacagggac 300
catgggacac tattacgcaa caggaacatc caatacttgg gcaacccttt tttgtacttc 360
atccctgcaa gacgaatgaa ttcatgactc ctgtattaaa gaa 403

<210> 745
<211> 153
<212> DNA
<213> Homo sapiens

<400> 745
gtcaaaaata aaggaatcat acatctcaac ttactgagca atgccgtagc tatggaatat 60
gaagcatttg ttgcactctt tttgtgagcc aggcattgct cagtaagttg aggtcaaaaa 120
taaaggaatc atacatctca aaaaaaaaaa aaa 153

<210> 746
<211> 398
<212> DNA
<213> Homo sapiens

<400> 746
gcgctggcca tgaaacacat ggatctgaag cagatggagc tggacacggc ggcggccaag 60
gtggatgaac tgaccaagca gctggagtcg ctgtggtcag actctcccgc gcctcctggc 120
ccgcaggccg gaccccccttc tagggtaagc ctggttccca ccttgatctc caaagccagc 180
ctctcgccac agtccagacc agaggcctgg atttcaggca aaattgcccc atatagttat 240
gcaggttgtg ggctcttcaa gggaacttga aaaaagggga ccaggccagg cgcgatggct 300
cagacctgga atcccagcac tttggaaggc gaggtgagag aattgcttga gactaagagt 360
ttgagaccag cctctacaaa tgatttttta aaaatctg 398

<210> 747
<211> 372
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(372)
<223> n = A,T,C or G

<400> 747
gaagaattct aaaggaagag actgctatga gatttgaagg attagtaagc actagctaag 60
taatgtaggg atgcacagag tgggaacaag gggtccatta tcacagcaaa agaaatcacc 120
caaagattct gtgccagttg gagtgtgaaa cttctcagga tctgaaaaaa tccagagtag 180
gtaaattaca gagaataagg gagagaatgc tgcaacctga tgcctataag agctagaata 240
gcctcgttaa ggtctgatgt cttactcaag agtaaagtat tataagctgg gtggtgagag 300
gagtaagtgt ccttatcaaa gtaatgaact gctgtagagt tgattaaaga gaggnaagat 360
ttatctgaag ag 372

<210> 748
<211> 374
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(374)
<223> n = A,T,C or G

<400> 748
gcggagccta cggagttcac ggtgcaaggc atcgtccgtc actggaccag tgaggcgcag 60
gcgcgagctc cccaggggga ggtgtgggag gtttttcnan nanaactttc naanatgttc 120
cctgtgaggn cganngcngn gcgnttatag tntnaaagtg gtattgaggt atttttattn 180
ggtaanagcc taggntntgt tcacccaang gaanaaanaa nntncnancc cnancaactt 240
ctggggcgtg gtccgttcac acgctactct annacccntg ggcatnatgg aagttgtant 300
tnanacnatt aaggncaccg tttcctgtna aacggnttcn naatncccta aaaaaggctt 360
gggaactttn ctta 374

<210> 749
<211> 373
<212> DNA
<213> Homo sapiens

<400> 749
gaggtggtca cggaatgggg ggcgctgctg tcctccccgg gggctgcagg ccgagaccgg 60
gtgaggggcg ggggtgatgc tggcactctg gacggaaggg cgtcgtcttc gcagccgaac 120
aggttgtgga cgcccaatcg tttttctgcc cgtagtccca atccgaagct aagctgtgtg 180
gttttccctt gaaagctccc cagccaggct tgctgcctcc accccttttcg catctgaagc 240
attttgcctc ccactcgaga gaaatcaatt ttcttaaaca aacaaaaaaa aagatgtgca 300
ggatttctaa taaatagcat ccttggatgg aggagaagag gaatgactcc ctcatcctgc 360
cacacacacc ccc 373

<210> 750
<211> 399
<212> DNA
<213> Homo sapiens

<400> 750
ccagccttcc ccgccctctt cggcgccagc acctcccttg ccctccagga ggaccccagc 60
ggcagcatct gaaacgtccg catttgagca gcacctgctg gactcccacc ggcagcaggg 120
cgccctgctg tcctcctggg cccagcagca gagcacactc atggcccagc aaaacctgct 180
gctgcagcgg ctggccgagc agagccagcg tctggccgat ggcgtggagg ccctcaaccg 240
gaccctcgag aggctggtgg aagcacgccc tacccgggaa gcctcaccct cactccagga 300
cggtagtcct gccagtggag tggccagggg cctgctggag gctcccagga cagccccaag 360
ggcacccact cggggctcga ggtcttctca gggatgatc 399

<210> 751
<211> 369
<212> DNA
<213> Homo sapiens

<400> 751
tttaaaatcc aactacagaa aaatttttaa ctgaaagatg ccttaataga atgatctata 60
tcccttagag aaaagattag gacagtcctt tatccccttg aattactttt taaattttta 120
attttctgat tttaattgca ataactgatt atcatatata agtactagga ttctggaaaa 180
agtatttcat ctcaaatttc ctctaagtag ctaatcttcg agaatggtaa cttatgggaa 240
ccccccttgat tcccttgctt tatgacactg agcaagttac ttgagctttc taataccatt 300
ttattcatgt gtggtatgac aatggggatc atgattatat tgatttatgt taccaaatga 360
tttgagggg 369

<210> 752
<211> 364
<212> DNA
<213> Homo sapiens

<400> 752
aaacacacag gcatcctgaa agaggccgag gctgagatgc aggagcgcta ctttgagcca 60
ctggtgaaaa aagaacaaat ggaagaaaag atgagaaaca tcagagaagt gaagtgccgt 120
gtcgtgacat gcaagacgtg cgcctatacc cacttcaagc tgctggagac ctgcgtcagt 180
gagcagcatg aataccactg gcatgatggt gtgaagaggt ttttcaaatg tccctgtgga 240
aacagaagca tctccttgga cagactcccg aacaagcact gcagtaactg tggctctaca 300
aatgggaacg ggacggaatg ctaaaggaaa agactggtcc aaagatagga ggagaaactt 360
ttgt 364

<210> 753
<211> 386
<212> DNA
<213> Homo sapiens

<400> 753
attctacgtc actgctcaag tgtcagtcag ataaaagcca gtggcagact tgggacgaat 60
tggttgagca tctgcagttt ctgctgtcca gttatcaaca tgttttaaga gaacacttaa 120
ggagttccgt gatcgaccga aaggacttaa taatcaaaag gattaagccc aaaccccagc 180
aaggagatga catcacagtg gtagacgtag agaagcagat tgaggccttc cgcagccgcc 240
tgatccagat gctgggggag cctcttgtcc cccaactcca agacaaagtg cacttgttga 300
agctcctgct cttctatgct gcggacttga accctgatgc agagcccttt caaaagggct 360
ggagcggctc ctgagggcct gcaagc 386

<210> 754
<211> 391
<212> DNA
<213> Homo sapiens

<400> 754
gcatctccag agcatgaggt tttaagggga catgagtaaa gcatgtctgt gacccagtga 60
ggaagggaga ggccagctgc actcctgcac ggggttccta gctgcagaag ggtcccgcct 120
aggccgaggg gaaacacctg atagcagaag aggcctggat gcacacctgg cacgccgagg 180
ctctccgccc agacacagtg ctccatgtca gcccctgcac ctggggtgtg tgattcacgt 240
gcacagatgc cacaattctg caccaatatc ccacagatgg gggaaggtga gaggaagggg 300
caagtgatgt gtaactgctc aagagatgct taaacctcca tagagaggag cccgggccgc 360
aggggcatct tgtgtgtccc gtcacacact g 391

<210> 755
<211> 390
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(390)
<223> n = A,T,C or G

<400> 755
caagacaatt ataggagatt ttcagaagga acagaaaaaa tttgttgaag agcaacatac 60
aaagaagtca gaagcagctg tgccccccatg ggttgacact aacgatgaag aaacaattca 120
acaacaaatt ttggccttat cagctgacaa gaggaatttc cttcgtgacc ctccggctgg 180
cgtgcaattt aatttcgact ttgatcagat gtaccccgtg gccctggtca tgctccagga 240
ggatgagctg ctaagcaaga tgagatttgc cctcgttcct aaacttgtga aggangaagt 300
gttctggagg aactactttt accgntntcc ctgnntaanc agcanccccc tcangggcct 360
gctgcccaca gcagnccnna gggnnggagg 390

<210> 756
<211> 384
<212> DNA
<213> Homo sapiens

<400> 756
ggagaacgtc cctccttccc ttttgctcct gtcccgcacc ttctacctga tagatgtgaa 60
gcccaagccg attgagatac cactcagtgg ggaggctcca aagactgata ttcttgtgga 120
attacctact ttcactgaat ctaaagagaa catggtggat cttgcacctc aactgaaggg 180
aactaaggat gaagacttta tacagccgcc accagttaca tcatcaccca taacaccatc 240
aacacctatt tcattaccta aaggacccat cacttcttct gaagaaccta cactccaggc 300
caaatcacaa atgacggccc agaacagcaa ggctagttca aaaggagcat aaaggactac 360
ttgaggatgg agctcactct cttc 384

<210> 757
<211> 384
<212> DNA
<213> Homo sapiens

<400> 757
ggaggcaaag agctgttggg agtgttttgt ggggtctctt cttccttcct tgtggctaca 60
tgaagcctga gtctcagcct ctggtttctt ggtttctttc cactgccctg ggcaaaccag 120
cttcgactga acgtcagcca gtccagagag taattaaaag agttaagtct caaaagtaaa 180
tctccgggaa gagccctcag tggtttcaga cccccaggca cttgtcctcg tgccctccct 240
gaggcgtcct gtcctactgg acatgctgga gcctgcccgt gtccttgtgg accatggaat 300
ttgcccgggg ttgggggca ggggtggaga gaaataaaac ttcctgtgat ctatgtatcg 360
gcccagtaca tagatctgga taga 384

<210> 758
<211> 374
<212> DNA
<213> Homo sapiens

<400> 758
gtttgttaac ctgtgcttta taagatttga aggaaaggca ttcatggtaa ttacagacgg 60
tgccaccaga aaatgctctt gctaaatgca gccagtagtt agattgcttc tttctccagt 120
ctcccccgca aagaaatttg acgtgattct gaatgcactg gacatgtctt gattgcgtct 180
ttacatttca cagtgtctta aaagaaaggc aagccagttg ttaatttcag aatcagattt 240
atgctctctc aatttaaaaa atgctgggca acaagagcga aactccgtct caacaacaac 300
aacaaaaagt ttggtatgtt tctctcaaga aaaaagcatg gtgagtccag acagcagcaa 360
aagcttttgt gaaa 374

<210> 759
<211> 373
<212> DNA
<213> Homo sapiens

<400> 759
gcctctgctg ccgccagccg ctcatctcca aggcctttga gatcatgttg gctgcgggcg 60
aagggaaggg tgtcaacaag aggatcacct acaccaaccc ctacccctcc cggaggacat 120
tccacctgca cagcgaccac ccggagctgc tgcggttcag agaggactcc ttccaggtcg 180
ggggtggaga gacctacacc atcggcttgc agtttgcgcc tagtcagaga gtgggtgagg 240
aggagatcct gatctacatc aatgaccatg aggacaaaaa cgaagaggca ttttgcgtga 300
aggtcatcta ccagtgaggg cttgagggtg acgtccttcc tgcggcaccc agctggggcc 360
tgtctgtgcc cct 373

<210> 760
<211> 348
<212> DNA
<213> Homo sapiens

<400> 760
gtgaccatag agatcatgct ttacatgctt tgcattttgt ttgtagcatt aaaaagatga 60
catttttcaa tgtcaattac tatagctgta cattgtactt cataattgca caatatgaat 120
gtaccatggt ttatttaact aatctcataa atttttgtga tttttttccc ccacggaatg 180
cttcattatt gtaaataaca atagaatacg catccttgta acatatcttt actaattata 240
tctttactaa catgttaatg ttaatttgta gatggactgt tggtcagatt atttatgttc 300
atcaaatgct ttttccacta attcctaaat taccctccag aaacattg 348

<210> 761

<211> 347
<212> DNA
<213> Homo sapiens

<400> 761
gtccttaaga atctagactg acatagtgga aaataaggta cagttggagc gaggtgagaa 60
aagcccagta agagtttgat ctggtcctta agaagcctcg gaaggttttt agcgatgaag 120
agcattgtgt gtgtgtgtat aaagaattgc aaggggcaa ggctggggcc ccaagcctgg 180
atggtggcaa gaaatcgggt tgtgtgtcaa gtgtctgtat aacctgggat actagaaatg 240
aaggagggga gtggtttgaa agatactgaa agcaagaatc atgggatttc tgcctgtcag 300
ataggggcat tttaataagt ctcctaagaa aggaatgccc tttgatt 347

<210> 762
<211> 348
<212> DNA
<213> Homo sapiens

<400> 762
gttacactgt atgtcctgtt gtaaatttct gtctctgttt atcaggcaac tttctctcag 60
aagctcactt ggaaatcaag ggaaataata caccgtgcag aggaaagaga atctggtccc 120
ttgtgcctcc ctgctgtggt gcagcatggt ctgatgacca agggcacagg atcctatttc 180
taggattagt cagaaagaat tgagcacatg tctgtagact tttgcctcag tattatattt 240
tagatggttt agtcggagct gttacatttg gcagcattcc ttgttagcat ttgataaaca 300
attattgcca aatgttagca aggaaacctg ccaaatgtta cagctcaa 348

<210> 763
<211> 349
<212> DNA
<213> Homo sapiens

<400> 763
gggactggaa gcctgccatg gcggcttctg cggcggagac gcgcgtgttt ctggaggtgc 60
ggggacagct gcagagcgcg cttctgatcc tgggagaacc gaaagaagga ggtatgccca 120
tgaatatttc cataatgcca tcttcactcc agatgaaaac ccctgaaggc tgcacagaaa 180
tccagcttcc agcagaggtc aggcttgtac cttcctcttg cggtgggcta cagtttgttg 240
ttggagatgg actgcacctg cgactgcaga cgcaagcaaa attaggcaca aaactgattt 300
caatgtttaa tcaaagctcg caaacccaag aatgttgcac gttttattg 349

<210> 764
<211> 345
<212> DNA
<213> Homo sapiens

<400> 764
ggaagggaag gcaggacatg ggccgggccc tggcccagga cggcccaaat ccaaaaacct 60
tcagcccaag atccaggaat atgaattcac tgatgaccct atcgacgtgc cacggatccc 120
caaaaatgat gcccccaaca ggttctgggc ttcagtggag ccctactgtg ctgacatcac 180
cagcgaggag gtccgcacac ttgaggagtt actgaagccc ccagaagatg aggctgagca 240
ttacaagatc ccacccctgg ggaagcacta ctcccagcgc tgggcccagg aggacctgct 300
ggaggagcag aaggatgggg cccgggcagc ggctgtggct gacaa 345

<210> 765
<211> 339
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(339)
<223> n = A,T,C or G

<400> 765
ggaggctgag gcatgaggtt tgcttgaacc tgggagatgg aggttgcagt gagccaagat 60
ggtgccatta cactccagcc tgggtgacag agcaagactc catctcaaaa aaaaaaanac 120
accaaanatt ttnttaatcn ctgancnctn ttttntntca nttataagaa attgaaaatt 180
ntaatnancc tcctatttaa tnaatnaana atngatttaa ngattnagtt naaaangtta 240
aattcntttt aaaananccc attacntgtt ancncaaana ncatgttttt nttttntttt 300
nttttnaaac aaagtntcnn tntgttgccc aggctggag 339

<210> 766
<211> 338
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(338)
<223> n = A,T,C or G

<400> 766
aaacacttta attattttct gttaatatta ctcttaatat aaaattcagg tgcattgaaa 60
ctgtagagga taagcaccta atcttgcagc atcagagctg atgctagttg gaattgcttc 120
tttgtggtaa tgaggaaaca acgctctttt ttgcatatgg agagagctgt accttaggcc 180
caacatgtta cttggccaaa tgtttttgtg cagtgtaccc cctgtacagc tgtatgtgat 240
tggccaacct tatctcttat ctcccatagc agccttaatg tctccttgtt aactctcatc 300
tcacttaaag ttacttgntg aatgnctctc attcttgc 338

<210> 767
<211> 417
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(417)
<223> n = A,T,C or G

<400> 767
gtcaatgaat aaagaaactg gtctcagtgc ctgtgaaaac atcgaggaaa aggacagctt 60
taaaaacttg ccttctgacc tcaggtgatc cgcccgccta ggcctcccaa agtgttggga 120
ttacaggcgt gagccactgc acctggccag ttgagctttt taaagataac agaaaggact 180
gctgagaatg agtaaaccta tgtccgtaaa gagaattgca tgatttactg caagtattcc 240
tgggagtgaa gcatcacgta cacactgctg gtctcgtgtc ctcctgaaga tagcccctca 300
cacttcacag tggttggaga aggttctttt tctctcctgt cttccctctg ggtcccacct 360
ggtctagcat tttcatctgt gttgaaattt gnttttcatt tctgttttaa gtccttg 417

<210> 768
<211> 418
<212> DNA
<213> Homo sapiens

<220>

<221> misc_feature
<222> (1)...(418)
<223> n = A,T,C or G

<400> 768
agtgggtacc tgcattcttt gctctatttt tgtgtgtctc cgtatattcg tttttttgttt 60
ataattagtt gcatttattt ttatggtttc tgtatcttaa aattttttttt aagttataga 120
agaaatacat gctatcagca aaaaaaaaag aaaaaaaaag tccagctncn canaancgag 180
gagngcgaag caaatagccg nttcacgtcc cacaccctgg cagcagntgc gcccgggtct 240
gtccgganat ggngtgtgca ancgtattcc ancncaaaaa tctggacttc tgtttnttat 300
gaaagcagct gatgccacac tgtgtgccct gtgccgtact gtgccaggca cctggacgga 360
cctggnttct ccctgtgcct ctgaagggcg gacggcgttg tgtctgcnca gcctgcag 418

<210> 769
<211> 414
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(414)
<223> n = A,T,C or G

<400> 769
ggtgctcctc tggcttttca aggtttggta agagctaggg gtcccggtgc tcctctggct 60
tttgtaggtt tggaaggagg ggatccatct ggcctcactc tgcctcaccc attaaatgct 120
ttgcccatag gaaagtctga agataacacc agcatgggaa tttatttaag gggtgggaac 180
cacaagctgg gacaaccttt gcccaagcag gaagcttata aaattcatct cagacagagg 240
gatggcaggc tgctgccggg ggtgggggcc gccctcttct cccacccacc cctgctggca 300
tcagcagctg caacagaatc ctcctcacac ctggtgctta tttataaact accccccttgc 360
tcagctccat cagaattggt aaagccaaag ctacaggaga ataaaatgna gata 414

<210> 770
<211> 408
<212> DNA
<213> Homo sapiens

<400> 770
gtaggcaagg acgtcagagg gctgatgggg ccatatcagg tggggccttg agggctggcc 60
atggggactt tgcttctacc ctgagtgaga tggagctatg gatgtgaact gataggggtg 120
ttcacgggct ccttgggagg agggaaggag gggctgagag accagggagt aggctgctgg 180
gctggtccag gcaagaggta acagtggaca ggaccaggcg gagtgagaag aggtcagatt 240
tggaattatt gtgatcagca gacagctctt acctggggtg tgagggaaag aggagcccca 300
gaggactccc ctgtttttgc aactggaaag caatggtcag ccatggcagg gtttgtcctg 360
catcaagaca agcgagccct tgctggcaca atgctcatgc tgtaattc 408

<210> 771
<211> 423
<212> DNA
<213> Homo sapiens

<400> 771
ctttggactc acgtaggcat aggagaacga aacttctgta cattttaatc tgaataattc 60
ttcaggattt aaaattaatt ggctctggct tggttggacc gtactcggat ctcgccacct 120
ctgcgtttcc cgagtcactg gcgaagagaa ccacatcaca tcaccgtcag ggagaagaag 180
atagcaaaat tggggaagcc tatttctgtg tagaatgtat gttaataact tatttacttc 240

taaagttgga aggcaaagaa gagagtgagt ttactgttct aaaccctgtg acctaatagt 300
cctctaatgc tccggtccca gttcctctgg gaatcgtcct gtatgcaaca tcttcacaag 360
agtggcaggc agttgaatct ctggccttcg tgggaccact ggacatctgg cagagaacca 420
gga 423

<210> 772
<211> 397
<212> DNA
<213> Homo sapiens

<400> 772
gcgagactcc atctcaaaaa tagcaaaaaa caaaaaaaca aaaaccaaga aacaatttta 60
gacattagct tctttttccc catcattata aagttatttt gccatttgtt tttggttcct 120
atattggttt tatcagaatt aggtaaatcc tttttttctt gcttcttcca cctaaaaaat 180
gatagtaaaa catatctttc tgcagacttc tgaagaaaat tatataaaat tacatgaagt 240
ggtaccatta gtgttatcaa gtagaaccta caggataggt ggcagatttg gaagtttccc 300
acctatttta atgttagaga ccacatatct attgcattat tgctaaaaaa aaaaattcct 360
cactcaatca aacatatttc caatacctgg gaaaagc 397

<210> 773
<211> 419
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(419)
<223> n = A,T,C or G

<400> 773
gagactttca attttggaag caaactgagc tattcttacc agccaaagtt atactaaata 60
agagacttgg gggagcaaat gtttttcagc cttcagaaat gaaagttaag gattttagca 120
ctaggtaaaa ttcagtataa taggctgaag tggagtaagt gaaaacctgc cttttgccac 180
tcttaaaaat tgtgcccaaa atataaaagt gtggaacttt agaacttgga ataattttat 240
tgcagtcttc cattacatgg aaatagcata tctaatatct aggttacttg agagaccagc 300
taatcatctc tgttgcacat gtttaattgg caaaaagcaa ttcatgataa ataaaattac 360
tgctttccat ctactgggta aaatgactat tgaaataagt atgaatgtgg ncagaggat 419

<210> 774
<211> 390
<212> DNA
<213> Homo sapiens

<400> 774
cttatccctg tttgatttct gagtttggat taataactat gttttttaac ttcaacattc 60
tcacaaacaa tttctgcata aaacttcttc tttaaagctt aaaaagaaaa aaaaatctac 120
ctaatggagc actgaactag aacacaaaat acttgggttc taggcctggt tctgccatca 180
actagcagtg tgtgagtttg ggcaagtttt ttcatcatct atccaggcct gctttgctcg 240
tttgtcaaag agggatggct ttgcagatgg ctaagtttcc ttcaggctct gacatctgcc 300
tcatgacttt ggcactcttg tcatgaagat gaagtgacag ttcttttaaa gtgggaagcc 360
agacacaggg tttctagttt gcctgagatt 390

<210> 775
<211> 392
<212> DNA
<213> Homo sapiens

<400> 775
ggtgcgcgct gtgggctgcc tccccgtgct gtgtagcggg acggcaggtc atttattggg 60
gaggcagtgt tccctaaaca ccttaccagc agcttccatt ttggcatgga agagtgttct 120
cggcaatgtg actgcagatg agctgtggaa aggcgcttta gcagagactg gtgctggagc 180
aaaaaaagga agaggcaaaa gaactaaaaa gaagaaaaga aaggatctga acaggggtca 240
gatcattggt gaagggcgtt atggttttct atggcccgga ctgaatgtcc ctcttatgaa 300
aaatggagca gtgcagacca ttgcccaaag aagcaaggaa gaacaggaga aggtggaggc 360
agacatgatc cagcagaaaa aaaaatggga cc 392

<210> 776
<211> 415
<212> DNA
<213> Homo sapiens

<400> 776
ctgtttttcc cagcccgtta ctcctgtagc tctgaatgga aacagcagct cacatgtcac 60
ctctgtgtga cggactcggc cccacccaga cacacaggtg tggttgtcag cgagcacctc 120
aggagaactg agaagctctt tttcaccatt ctttccccaa atcagtcaaa accttttaaa 180
aaccattatg agttgtgaga aggtttcaac agctatgttt tcaaagtgtg tgtatatgat 240
ggcactgtgg tcagttcacc aagagcagca ctgagatggg tggatccagg tgcaccttga 300
aaagttaatt gcacaaacct ttgctttgac cccaaatacg cttgctagtg cccttccctg 360
cagcttccca gacaatcaac agggtccatg gggcagggc ctggcacagc aatgc 415

<210> 777
<211> 393
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(393)
<223> n = A,T,C or G

<400> 777
gctttttcca gaacctcggg atccctggag agagcatttc ccttggcttc agctgcagcc 60
cctctttcta gatggaggga gctccatcgc gggggtcccc caggggggaca gataccttcc 120
tgttccctct gcccaagggc ccacgctcag agcactgcct cccacactgt ccctctgcag 180
atcaaccgag gcattgactc caacagagag tggattctaa tttagtcttg gctgggaccc 240
ctttcccgca aaaagatatc tgacctgatg tcttgccaag tctctaccct cctcgggctt 300
acatcatgga aactgtctct tttacttcat ggaattcaag aacactttct tccttctggg 360
cctgaatctg aagccagtca cnaagggaag gcc 393

<210> 778
<211> 392
<212> DNA
<213> Homo sapiens

<400> 778
gttcaacata ctacagactc ttctctcgaa gaaaaacaaa ggacattaga ctcaggcacc 60
tctgaaattg tgaaatctcc cagaatcgag tgttctaaga caagaagaga aatgcaatca 120
gatctcatat atagaacctg tgacaatgct ttcattttgg cgcttttcac ttctattgtg 180
gttcaactca taatgacaag agacagtgat ggttatgaaa actcaacaga tggtgaaatg 240
tgtgacaaag atgctctgga ggaagattca gaaagcgtta gtgaaatagg aagtgatgag 300
gaatctgaaa atgaaattac aagtgttggt agagcttcag gtgatgacga tggaagtgaa 360
gatgatgaag aggaggatga agatgaagag ga 392

<210> 779
<211> 401
<212> DNA
<213> Homo sapiens

<400> 779
agcggcgctg gctttaggtg aacgacgtga aaattacttt tcccactgaa acacacccaa 60
gtatatgccc agccttcatg aaagtgaaca gagaaacgaa gcgcctttat gtgggtggcc 120
ttagccagga catttctgag gcagacctac aaaatcagtt cagcagattt gaggaagttt 180
cggatgtgga gatcatcaca cggaaagatg accaaggaaa cccacagaaa gtttttgcat 240
atatcaacat cagtgtagca gaagcggacc tgaaaaaatg taatgctgtt ttaaataaaa 300
caaaatggaa aggtggaaca ttacaaattc aactagcaaa agaaagcttt ctgccagatt 360
ggcccaagag agagaagcag caaaagctaa gaaagaagaa t 401

<210> 780
<211> 396
<212> DNA
<213> Homo sapiens

<400> 780
gttagcatgg atgaggaaaa atttgtggat gccgttaact ctgccttttg gagtgatgct 60
gaccacacgg acttcatcga cacagctggt gccatgctgc agtatgctgt cagccttctg 120
aagcccacta aggtctcggc tcgccagctg cccccaagcg tagccagggt ggatgccaaa 180
agccgagttc tgtttcctct tgggttggga catgctgctg agtacgtcag gcctcgggtg 240
gcgctcattg ggatgcagc ccacagagtc catccgcttg caggacaggg tgtcaacatg 300
ggctttgggg atatctccag cttggcccat cacctcagta cggcagcctt caatgggaag 360
gacttaagtt tcatgaccca cctcacaggg tatgaa 396

<210> 781
<211> 385
<212> DNA
<213> Homo sapiens

<400> 781
gtaactacaa gttactgggc agggatggtt agctgggagg tatggatttc atttccatta 60
ctaatgcctg caattgctga taatagacgt gccccaggaa tcgctgcaag ggaaatggaa 120
catgggtctc cttctgtggc ccaatctgga atgttagtgg tgcaatctcg actcactgta 180
acctccgcct cccggattca agagattctc ctgcctcagc ctcccaagta gctgggatta 240
cacgtacgca ccaccatgcc cggcaaattt ttgtattttt agtagagata gggtttcaac 300
atattggcca ggctggtctc aaactcgtga cctcaagtga tctgcccgcc tcagcctccc 360
aaaatgctgg gattataggc gtgaa 385

<210> 782
<211> 376
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(376)
<223> n = A,T,C or G

<400> 782
aatttttgta tttttagtag agacggggtt tcaccatgtt ggccaggttg gtctctaact 60
cctgaccttg tgatccgccc accttggcct cccaaagtgc tgggattaca agcatgagcc 120
actgtgccca gctgagtcta cctttttttt tttaggagtt gtaaataaaa caagaaaata 180

acactattag ttattttatt actaactata caactacttt aacanaacac tntttttttcc 240
caggggnggg gtngggngta aangggcctn ttgtaaaaat nactnttggn catggnaatg 300
ggggattnat aanaattttg ccatnttagg gctgctcaca gnatttgggg ccaaacccta 360
cgngaatata tgtggg 376

<210> 783
<211> 381
<212> DNA
<213> Homo sapiens

<400> 783
gctaaatgca ttttagaaat ggtgacttct gtggttttct tagcatttgt ctctaacaaa 60
tggtgaaata attactcatg gccctctctg ccattgtctt tcatttttttc acagtgaaat 120
tagacccctt tacttcacca ttctgccact gcaaattaag tataaagaaa atagcaagag 180
tgtccacacc agtagacagt aagcttctct acctgtaagt gatgaaatca tagctaatgc 240
acttgccatg gagttttcaa gatgattggt gtcagacagt tttcactttg tttaaaaagt 300
gttggtggcc ttttgtggtg gtgttacaat cctctggggg cttaggagga tgttgatgca 360
acttttagaa gcttttaatt t 381

<210> 784
<211> 393
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(393)
<223> n = A,T,C or G

<400> 784
gctcattatc tcttgttgaa ttaccatagt ctaaggggta atttaccatg gatagtatta 60
gggattccaa aaccccatct tatcagtgtt ccacagttta tcagactcag ctagtacaca 120
ctaaatgact cttaatagat agtttattaa cttacaatga gaaatattag gtcaagcgga 180
tgtttgcgtt gttataaaca cattgtctct gttcaggcac aacttaaagt cacattgcca 240
caggtttcct ggggcacaca gaatcagtgc aggaagagag gctgctgctt tgcgtggccg 300
atggcatgag tcctttctaa tccgaccaac cgctgnggca tcatcctgct gcagctgagg 360
tgaacggggt gcttgcattt gctgcagtat ggg 393

<210> 785
<211> 393
<212> DNA
<213> Homo sapiens

<400> 785
gcggcttcct tccggctctg cgctcctggc tggggctgct gggcggctgg ggccgggtcc 60
ccgcacccgg ctctcaagtc cgggattacc cgcagggcct gagaagcgct ttgcccccta 120
cagcctctcg agccagccct tggctcggaa ttggagaatg gtcctcattc ttacccagat 180
ctcacacgcc gtccccgctc ccgatcccag gggtgacag gcgcgcacgc ctttcaaaca 240
cgtgttaaaa tccaagacgt cgtctcaaat gccagagatt tgcgggaatg ctcctggaag 300
gcctcaaaat cgccgcaaga acagtccact ttggaaagtg aagaatggaa tccttgggaa 360
ggagatgaaa aaaatgagca acaacacaga ttt 393

<210> 786
<211> 374
<212> DNA
<213> Homo sapiens

<400> 786
gtgcccctcc actccgggtc ccaggggaga ctgacaccca ccaaggcaac cacctgcttg 60
ttacagagcc ctgcaggagg cagctcacca cccacgagga gggacttagg cagcggactt 120
gctgagggca gagccttgtg aggcaaatat tatcacacta atttcacaaa ggaggaagtc 180
aaagctggcc ctgcagtatg aagactcaag cccagacttg ctggctcctg cctgcatctc 240
cctccacctg ggtctcctgt ctccctacct gcggaaagct cacactctga atcattgtgc 300
atggctctta ccccgccacc ccatccttgc ggctgctcac ctcctgcatc acctgtgccc 360
actcaacagc acac 374

<210> 787
<211> 382
<212> DNA
<213> Homo sapiens

<400> 787
gcttaaagga ctttttatgg tacttgacta tctttttagg caaaatagca gatttgcaga 60
tgattataaa attgcgattc aacagactta ctcctggaca aatcagattg atatttcaga 120
caaaaatggg ttgttggttc taccaaaaaa taagaaacgt tcacgacaga aaactgcagt 180
tcatgtgcta aacttttggt gcttaaatcc agctgtggcc ttttcagata ttaatggcaa 240
agttcagacc attgttttga catctggtac attatcacca atgaaatcct tttcgtcaga 300
acttggtgtt acatttacta tccagctgga ggctaatcat atcattaaaa attcacaggt 360
ttgggttggt accattgggt ca 382

<210> 788
<211> 381
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(381)
<223> n = A,T,C or G

<400> 788
ggcaagtcaa tctttttat ttccttataa aattaactct tcaaaagctg ttaaacagag 60
agttatctta atttttattg cagtaggagg aaatatattt aaaatatttg tagatttata 120
gcaaatagag actcgttatt taaaggttaa ataacaattt gttcttttgt tgtttttgcc 180
agtttagggc agtagctgct tttgtcataa atatcttcct accacatcaa aaatgctgct 240
tttaaaattt ttgtttataa attgagaagg aattttctct ctataagttt ctgtcattga 300
acagatcacc attaaaaaga atattagaat ccagcatgaa gataatggct aataaaaatg 360
aggnacatac tttataaaac c 381

<210> 789
<211> 366
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(366)
<223> n = A,T,C or G

<400> 789
gtatttttga tctgagaata atctctatga cttcggtaaa ctctagtgtg tgttgataaa 60
aagtaatcat cagttttctt attttgccaa atatatatac tttaaatttt attttttcc 120
aggaacacta tgttgagata tcatttattt tataattaac gcatgttctt ttatttgttt 180

ttgttttttt tttgaaacgg agtcttgctt gcattgccca ggctggagtg caatggtgca 240
atcttggctc actgcaacct ccgcctccca ggttcaagcg gttctcctgc aacagcctcc 300
taagtagctg ggattacagg catgcgccat catgcccagc taattttttg tatttaggan 360
agatga 366

<210> 790
<211> 368
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(368)
<223> n = A,T,C or G

<400> 790
gctggaccca gcatgcacac ttctcggcta agagtcaccc tggatgaacc accattgcca 60
gcggggagca tgttgcagct ttcccacgca gtggatgaga acgaaggtta cgaccattgt 120
gtgggaggcg tctgtgtagc aattgctgga atcacttgtg gcattgtaga aagactgagc 180
gtgggaaaga agacgcattc tgaagtcacc ccgatttatg ttaaattatc accttgacta 240
ctgctataga acgaatgttt atgtccccca cccaaattcg tatgctaaga cctaatagcc 300
aataagatag tattaataga tggggccttt gggaggtgag tggctcatga aggcagaagn 360
cttcaaaa 368

<210> 791
<211> 361
<212> DNA
<213> Homo sapiens

<400> 791
ggaaggccaa gttactttca tggtcttacc ctctgctttt cccctttttg caaaaaacca 60
ctggccaaat ccgaaccatt gcccttgttt cccccacgtt ctctctcaga tctttgtctc 120
gaagggaaaa catagtggat gaaaaggtgt ggcaggcttt ggcaccttgt taaaatttct 180
agtcatctgt ggatgttacc ttgcttgtcc acagcagcca gtcaccctgg ccagtcccac 240
ttcctggata attctctacc ctcaccccac agagccatct ctctccagac caaaagctgg 300
aaggagagtt gctttgagag cttgttttta caactgcatg tttattatga tctttctctt 360
c 361

<210> 792
<211> 361
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(361)
<223> n = A,T,C or G

<400> 792
gtcacgttca cactacaata tcaattgcaa ctcaacaagg actccagtcg ccaaggagct 60
taattataat ctagacactc atacgtctac tgggaggatc aaggcagctg agaagaagga 120
agcgtgtaat gtagaaagca acagaaaaaa ggaaacggaa cttcttggct ctttttctaa 180
aaatgaatca gttccccgaag ttgaagccct gctggcaaga ttacgagctt tataagttaa 240
actggttttt aaaaaaaatg attaagccaa atataaagcc atgctctaaa ctataacact 300
tgaaaaaatt gcttttatgt aagtgacttt atatagnttt aaattatgat atatattaaa 360
a 361

<210> 793
<211> 386
<212> DNA
<213> Homo sapiens

<400> 793
gtttattcca aatgatagcc tgccttcccc aagtacaatt gtatctggtg acattcctgg 60
aacagtaaga agttggtacc atggacaaac cagcatgccg ggaacacttg tcctctgttt 120
gcctcaaata aagattatta gtgctgggca caagtatatg gaacctctgc aggagattcc 180
atttgttatc ccacgaccca tccttgaaga aggtgatgct tttccttgga cgatcagctt 240
gcataatttc agcatatata cccttcttgg aaaacaagtg acactttgcc tagtggaacc 300
tatgggttgc acctccactc tagctgtcac gtctcaaaaa ctgcttgcta cgggacctga 360
tacacgacat tcatttgttg ctgctc 386

<210> 794
<211> 352
<212> DNA
<213> Homo sapiens

<400> 794
ataacttgga cagtctatcc ttactagaag ttgttgactt ggtggagact actcaggatg 60
ttgtagatga tgtgtggaga caaacagaac atgatcatta tcctgagtca cgaatgttgc 120
atctcttaga catcataggt ggttcatttg gaaggtttgt tcagaaaaag ttgggaactt 180
tgaacctgtg ggaagatcct tattatcttg tgaaagaaag tctgaaagct ggtatttcaa 240
tttgtgaaca gtgggtgata gtctgtaatc atctaacagg tcaggtgtgg cagcgctatg 300
ttcctcatcc atggaaaaat gaaaaatatt ttccagaaac acttgacaaa ct 352

<210> 795
<211> 345
<212> DNA
<213> Homo sapiens

<400> 795
ctaaaccaga gctctgacct agatgtcact gtagttggag agtcttaaca gtagctgatt 60
tactaattgt catttcagaa gatagtaaga ggtggaaatg ccccagtgaa ttttgttaac 120
attattattg agggcctgct gtaataaata tctaggaact atttaggtag tagaaaaaga 180
gtatatgtcc tttctgtctg ccttcttttg gtttttttgct tctcttctgc cttaattaaa 240
catgatttgg aatagttatt tttaccttat tactcaagtt aatacttttt ttaatgagca 300
gtatgtcaca tcacctaaag atgactgctt tttaaccagc ttcta 345

<210> 796
<211> 346
<212> DNA
<213> Homo sapiens

<400> 796
ctttttaaat cttgaaaaac caattgttta cttgaaactt gaaagtagca tatttttctg 60
ttttttggtt gtttgttcat ttgtattagc acaatttaat gtaattcctg gtttggaggc 120
agcaagacct atgagcaaga actatttact tgaccctcgt ttttttctct tgttcttgtg 180
tggtctgaaa tctaaaacta gactttatta tgatagattt cctataagcc aatttctaat 240
aacaaataga tttattattt aatctgtacc ttctatcttc tcataattcg tggtcttaca 300
gccttccaaa ataactccag ttgggcaccc atgagctagg atcaaa 346

<210> 797
<211> 337
<212> DNA

<213> Homo sapiens

<400> 797
gccgaacttg cacagctttt cccaggctca gtcattgatc ccccagcagt caatcttgct 60
gcacataaca aaaattccaa caagtccaga atgaatccac ttggttctgg tctagccctt 120
gcaatttctc atgcttcaca ttttcttcaa cctccgcctc accagtccat tattatagag 180
cgaatgcatt caggagcaag aagatttgtg accttggatt ttgggaggcc tatattgttg 240
actgatgtat tgattcccac ttgtggagac ttggcctctt tgtcaattga catttggaca 300
ttaggagaag aggtggatgg aaggcggttg gtagtgg 337

<210> 798
<211> 344
<212> DNA
<213> Homo sapiens

<400> 798
ctaggaggca cagaattctc attctgttat ccagttcatt ccagcaatca tagttaatac 60
agtacttggt gacacgccct accccttct cttccaagtt tcccactcac ttgaggagga 120
aaaatggcaa aagaaagctg tctagggttt taccattgaa gggtggaaga acagagacaa 180
agaggagctc tttttctgtg agctgggttg cacaggaaga atgtcacagg gaaccaaaaa 240
gcacagaaaa aggaagtgct ggtgcatatt tttgagttaa aatatttccc tattttatca 300
tgattactaa gtgagtagta tagacagaag tatataacta atgg 344

<210> 799
<211> 347
<212> DNA
<213> Homo sapiens

<400> 799
attcttacgt gatagtttgt tttccttggt tgcttactta tctttcttca ttagaacatc 60
aagttccatg ggaagagaga cttgggctgt cttccatgcc tgacagtagt agatgcttca 120
taaaagtttg catatgcaaa tatggaagtt ttcatccttt ttgctataaa ggatatctaa 180
gtttattatg tggaaatttt aaaaagatac ttttacattg aagatttttt tccagatgat 240
tagagaaatg gaaatagctt aactagtaca aagagcactg gacaagaagt caaaacaaca 300
ggattcttta atcattctgc aactaattac atttgcctta tagcaga 347

<210> 800
<211> 346
<212> DNA
<213> Homo sapiens

<400> 800
gcgccgggaa agatggcggc gtctgtggtt tgaattccag cggcgccgcc agagtctgaa 60
caagagctgg ggtggagggg gcggggacct ggggagcccg gcgggtcgct atcgcggggg 120
gtactagtgg cgccgccgcc acagacacca acgccgtcgc cacctctgta tccatgatgg 180
acttggtgtt ggaagaggac gtcaccgtcc ctgggacgct cagcggctgc agtggccttg 240
ttcccagtgt accagatgac ctggatggca tcaaccccaa tgctgggttg ggaaatggtc 300
tgctcccaaa tgtgtcaaaa aaaacaagtg tcttccacca gagcac 346

<210> 801
<211> 342
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature

<222> (1)...(342)
<223> n = A,T,C or G

<400> 801
gagctcatgg ccttgcacct tcaagtgcac cacagccgcc gggctagggg ccgccggcca 60
ccccaggctg acgcgtcccc gccctatgcc cgagtaccat caggagagac ccctcccagt 120
ccttcgcagg aaggggagga gggcttcggg ctgtccagac ccggagaggc agggctgtgg 180
gggcaagaac ggtagtgggc cctcatgggc gattagctta ntgagcttac cccgccggan 240
cgggggagcg ctagaggtan ttgggtagag aagccanctn ggggctacgn nngacccata 300
tnncacccca ggcggaccan atgtgnaang cgcggcgncg ta 342

<210> 802
<211> 345
<212> DNA
<213> Homo sapiens

<400> 802
ggagagggag gtgccatgcc acaggccctc acctggggct ctgtggctcc aggtggctgt 60
gacaggggtg ctggtagtca cactcctggt ggtgctgtac cggcggcgtc tgcactagtg 120
aagccctggg ctcttcccac cacccatctg ttccgttcct gcagtacacc tggcccctct 180
ccgaagcccc ttgtcccttt cttggggatt gtggaggctg ggtcagaggg gagttaaggg 240
actgcaggcc tggcagcagg acatgccttg gctgaaccaa gtcctgagag cagcatctct 300
gtccccacgg tgccttgtgt gggtccccgt ccttggcttt ctggg 345

<210> 803
<211> 418
<212> DNA
<213> Homo sapiens

<400> 803
gaaagggagg caaaaaaagg ggaaataata agagaaaaaa aagaacaaaa aaagaaaaag 60
tcctactgct ctgcctgttt ttaatactga caccccataa acaaatctgt ccctgggata 120
tgatacagag gcctggagcc tgtgacctcc tttctgaatc tatcaggaga cacagcccac 180
accaaaacac caggagtgtt gcttctgcca aatatccttt actaacttca aagaaagaac 240
ggggaaagag ctgtaataat gcttaacacg aaatactgcc tttctgcttc ctttcctttc 300
cccatagact gaatgaactg tcattataag acaacatact gctgagttaa tgtaacttaa 360
aaatttacag caggttgtat gcctggaggc acattatggg gcccctgtag gcatctaa 418

<210> 804
<211> 416
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(416)
<223> n = A,T,C or G

<400> 804
gtgatatgct tgtcaaagtg ctgggattac aggtgtgagc cactaggccc agcctcagtt 60
tcttttatgg actcacttac ctctgcagat tggctcaaat gtcattattc tcaggcttct 120
ctcctgttta caggtgtcct gggccatcca gtccagtctc atgatatttg ccacccaatg 180
tgctcatgtt tcccaaacca gcatctcttc tctagaccca tcctctaatt agctgtttct 240
caagcaacct tttgactgtt gtttcttttt acttccctgg taccagggat aaaagtcccc 300
tgaattcaaa catgaatatt cacctcaccc agtcctctgg gaggtccata agtccctgtt 360
ttgggaagaa tgaagctgag ctctagctaa aaaaaaacaa nnanatttgg ggatct 416

<210> 805
<211> 410
<212> DNA
<213> Homo sapiens

<400> 805
gtggcgctgt gtttccgtgc tgtggagttg cctggtccgc ttcctccccg cgaataagaa 60
taaaagattc tggaggagtt ggagaagagt gtattcagcc cccaaaccac gagatcaaca 120
aattaggtcc acaaagatgt gagcaccagt ttgggtggtg gcaccacttg aattttccca 180
tacttaaagc tgactcacta gaagtcttgg gacaagtcat cgaattctat aatgaaatgc 240
acaattttga ggaagaatta acttgtccca tatgttatag tatttttgaa gatcctcgtg 300
tactgccatg ctctcataca ttttgtagaa attgtttgga aaacattctt caggcatctg 360
gtaactttta tatatggaga cctttacgaa ttccactcaa gtgccctaat 410

<210> 806
<211> 408
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(408)
<223> n = A,T,C or G

<400> 806
atttccctgt gcttaaaccc cttccttgtt ctttctttca tgtggctggc gttcagggcc 60
atttacaatc tcacacaaac tgcccttcca gctccacctt ctgattcttg ccaccatgag 120
cagcttctgt gtttttttgt ttttttgtg tgtgtttttt tgtttttttt tttacaaact 180
tccctttgaa aatgctgtac ttgttcacct ccctgtgcct ttacacatac cattctttct 240
gtctgaacat acctgttgac cctttaatac ccactgtaat aaatgttgcc tcttctctca 300
agcctttcag tccctatacc attaccgttt tgtacataca acgtgctagg tgtgctccca 360
cgtgagattg taaacttctt gaggacaagn ctgggtttta ttgatttt 408

<210> 807
<211> 408
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(408)
<223> n = A,T,C or G

<400> 807
accttttata gatgtaatga aatcccagat gttacagcta aaatgttttc tgaatagact 60
taatttaggt gtgtatctac tttataagta tattataagg atcatatttc ggatattcct 120
tccttcccag attaccttat attctggtca tctcttcccc ttcacattca ttgcctgttt 180
tcaatgtggg ggttgggggg atactaaaat atcaaggaat gggagccaaa aatcaaacta 240
aagcttttct gtatctaaat ttttctggat atgtttttag atgcaagata ctgtttactt 300
gaatccgtaa ataaaaatgg ctgtgttttg atagaaactt acacaaatgt attgattggt 360
gaaaattcag cagggtattc atttaatacc tattcatttt gncatatg 408

<210> 808
<211> 399
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(399)
<223> n = A,T,C or G

<400> 808
attttagtga ctatgatcca gtttatcccc aaatgcaaga agtcagtttt tcagttataa 60
atgctttcaa tcatttccag caaaccttgc tcagccaatt cttttacagg tgaagtaatc 120
ccaagaacat tctgttgctt attcattcaa caaacctggg gcatctactg tgtgccaaca 180
tttgtgtgat actcctggga gtcaagatgt gatcctggcc ttgaagctat tcttaaatgc 240
tttgactctt gagagctagt ggtgttttag ccacttactt tttctgtacc catttttttct 300
tcactttgat tttttcattt ttctacctgt atgaactcca ggtacttgtt agcttttcgt 360
ttttaaaaan ttgcatcttt cctgatgntt ctttagctt 399

<210> 809
<211> 395
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(395)
<223> n = A,T,C or G

<400> 809
ggaaggagaa aataggaaat gaaaggatta ggacttgggc atttatatta atacaaaatg 60
gtgtaaacgg cctgaatatc actgtagtag tatcatacgg gggaaagtgt gatggaaaat 120
aggtttaaaa atcttaattt ttaaaacttt agtaagcttt atttatattt tttaggattt 180
tctgaacata gcatgaaggg tttagattca tttttctgaa aaacgattaa aaaaactacc 240
aatttttttt ttgagngccc acacttgccg ttgngctgta tacntgattt taccttaatc 300
ctctataagg gaggngctaa ttgctccatt ttatanatga ggaaaggctc aaanaaattc 360
anaaacttgg ctaatttaac acagctgnac agagc 395

<210> 810
<211> 418
<212> DNA
<213> Homo sapiens

<400> 810
gacaccatgt acagggactc cagatgcccc aggcagaggt aaaatgctcg aaagagagga 60
acatcactac ctggcgggca ggtggggaca ggcttgccac ggatggtctg gggatgggat 120
aactctctgg ctcccactct gagaagcagg aggtgatctg gccacaagcc ctcaagacgt 180
gttgagtttg ggaatacctc actgctaggg aataccagga attatgcaat tcactgtctt 240
cattttaaaa ttctgtatgg gagaagctaa aaagtgaagt tgggggggttt tagtatattt 300
catttgcatt ggtttactct tctcgttcct tgattatctg agaggaggct gctgttacgg 360
aaaagcgaaa accaggagtg gtttgaatat tcttccttga gacttttgac tgtttcta 418

<210> 811
<211> 389
<212> DNA
<213> Homo sapiens

<400> 811
gcaggtctca aactcctgag ctccagagat tggcccgcct tgacctccca aagtgctggg 60
attacaggta tgagccactg tacctggcac accaatactt tcttgcccac tttctctcct 120
gttcattcca ttttgttatt tatgtgattc ttaggttata atcagttttg agaggttgta 180

catttactca tctttgtata tcatccccag catcctacac actgtagatg cacaaatatt 240
tttctgacaa cttaaccctc tgaaggacag catatacttt tggagggtgt gggaaacact 300
gggtaaaaaa aataaatttg catttaatag agtgtactca tcattccaca gaatttcaca 360
acacactttg aagtacagaa aatttatag 389

<210> 812
<211> 410
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(410)
<223> n = A,T,C or G

<400> 812
gtctttccct ctctcctgtg tttgcctctc tgtcctgccc ctgcgcaccc ctccctgtgc 60
ccaccctgtt tctgtcgcct gcggctcttg gggtgctcc attctcccgc cttcccttct 120
cctgcacctg gtcctgcctg ctttctcgct gtctgcccca ggaggtaggt acacgacctg 180
tttttgtctc ccatcactag acgaggggag ggggctgccc tggcgccctg gcgccctggc 240
ctcctgccca caggaggagg gggctggggg ctcaggctcc tgggctggga ctgacagact 300
cagaaaatgt ggagccccaa gctgggggtg gacgattctg gaccccaaca tgcctggcct 360
gcttgtctgt ctcccccaacg caacggcttt gtctaagccc caaganccccc 410

<210> 813
<211> 386
<212> DNA
<213> Homo sapiens

<400> 813
cccttatagt aagtttgttt aaacaaagta cagttaatat tactaaataa ataacaagga 60
aataagaact gagtagtaac ttaatgtttt gatttaagac taattttaaa gcatgcaatg 120
tgtttgccgt ggcagcacat gtactaaaaa gtgtgcaata taatggctta ttttcatggg 180
accatgctta actagctgta ttattaaaca actccatgtt tctgaggggc tcccaactct 240
ttacttccat tttgattgaa tttgttttca gaagttgaag aatctgccat tgagaagcac 300
tttctggact gtggaagtat catggccgtg aggattgtga gagacaaaat gacaggcatc 360
ggcaaagggt ttggctatgt gctctt 386

<210> 814
<211> 386
<212> DNA
<213> Homo sapiens

<400> 814
atcagaagag gtcagttaaa tattcaccca ggccctgggg gctctcttac agctgttctg 60
gcagatattg aagtaatatg gtctcatgcg atacaaaaat acttggaaat cccactgaaa 120
gatttaaagt attatagatg tatcttgtta attcctgata tctataataa gcagcatgtg 180
aaagaactag tgaatatgat actaatgaag atgggttttt cagggattgt ggtccatcag 240
gagtctgtgt gtgccaccta tggaagtggc ttaagcagca cgtgtattgt agacgttggg 300
gaccagaaga caagtgtatg ctgtgtggag gatggggtgt ctcatcggaa tactcggctt 360
tgtctggcat acggaggatc tgatgt 386

<210> 815
<211> 402
<212> DNA
<213> Homo sapiens

<400> 815
ctcatgtttc ttatgtctca cctctttcca gagccaaatc agccccttt ggaatgatga 60
cttcattgga atgcaaatca agtcattttg gtgcatcagt ggctcttagg cctgcacaca 120
cgagacatca gaatccaatc ctctgaccct gtgccagccc tttcccccag tttatttccc 180
accaaaggct gacctctaag aggtcttgct ttctatgaac tcaagatggg tcccacctct 240
aggtgtcccc aggtgcactc ttctaccggt tggcttccga tgtgacaagg ccaagggccc 300
aaagacttga ccctcttaca cccttgctga catggttcca tcatgtccac ccgcatgcac 360
ttttatggtt tcatcaccca gcctcttctc tctggccacc ca 402

<210> 816
<211> 402
<212> DNA
<213> Homo sapiens

<400> 816
tggaggattc ggcctcggcc tcgctgtctt ctgcagccgc tactggaacc tccacctcga 60
ctccagcggc cccgacagca cggaagcagc tggataaaga acaggttaga aaggcagtgg 120
acgctctctt gacgcattgc aagtccagga aaaacaatta tgggttgctt ttgaatgaga 180
atgaaagttt atttttaatg gtggtattat ggaaaattcc aagtaaagaa ctgagggtca 240
gattgacctt gcctcatagt attcgatcag attcagaaga tatctgttta tttacgaagg 300
atgaacccaa ttcaactcct gaaaagacag aacagtttta tagaaagctt ttaaacaagc 360
atggaattaa aaccgtttct cagattatct ccctccaaac tc 402

<210> 817
<211> 377
<212> DNA
<213> Homo sapiens

<400> 817
gcttggtgtg gaccaggagg gggcagaagg caccctgtcg tggctgggca ccgtcttcgg 60
cgtgctggct agcctctgtg tctcgctcaa cgccatctac accacgaagg tgctcccggc 120
ggtggacggc agcatctggc gcctgacttt ctacaacaac gtcaacgcct gcatcctctt 180
cctgcccctg ctcctgctgc tcggggagct tcaggccctg cgtgactttg cccagctggg 240
cagtgcccac ttctggggga tgatgacgct gggcggcctg tttggctttg ccatcggcta 300
cgtgacagga ctgcagatca agttcaccag tccgctgacc cacaatgtgt cgggcacggc 360
aaaggctgtg ccaaaat 377

<210> 818
<211> 373
<212> DNA
<213> Homo sapiens

<400> 818
ggaaagtcat cataacttcc ttcactcagt ttctgtcttc ttccagtcag ggatctagta 60
gcttgactat tcttcattgg ttccctttca tttacaggtc acccaacaag acaaaccaca 120
caggtaatct cttctgatcc ctgccatcgc caagagtcat ttcctgccct catcactttc 180
taaattctat ccaattccca gaatatccat gctccttctc actgtccctc attcacataa 240
tgcctaaaac actattcctg ctctttgcct gatgagccct tactcacttg tcaagactca 300
gatcaaattg tcaagactca gatcaaattg tcacctcttc tgggagggct tcctcaacct 360
ctctaagtgg agt 373

<210> 819
<211> 374
<212> DNA
<213> Homo sapiens

<400> 819
gtgggggagt tggttctagt actgtcacaa acttgccata taacttgaaa taagtctctt 60
tacatattta tgccacagct tccctctgtc aaatggattg tttgggtgtt tttttagact 120
gtctgcctca gggatccggg tacctcaagg gcttctaaga aggaaaaaat tagtgggatt 180
ctggtcctcc aactagaagc agccccgtgt tttgtctgtt ttttagacaa accactatct 240
tagatggggg agcagtgtgt tctgagttcc ttaggatttc tccatgatta aaatgagtgt 300
ggttttgatt agtatctcct tatcaattaa ccagttattt tgattatttt atttttacca 360
ggtttggaga aaat 374

<210> 820
<211> 398
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(398)
<223> n = A,T,C or G

<400> 820
tggaaggctg cggtcgcgct gtcgctgctg ttcccaccgt cggcgcgggg cgcggagggg 60
gcgaagaggt gcctgccagt cgcactgcgg tctaggggtg aaaggaaaag ggtccatgta 120
aaggagaaag ggcaggcaga gactcttgct ggtgccagca ggcacggaag gatgtggccg 180
cggggacttg gagtttagag ggcaacgctg ggtgtcataa tgccggagat gaccccgggt 240
gcagaggcga ttccagttgg gtagagctac agagaacgtg gcccgagaag gggagcttcc 300
ttaaattaga catatcctgt gttgtcctaa acctagcatt taccctctcc caccccgctc 360
ccacaacctn cagggtccta ncggagtcat ttaagccc 398

<210> 821
<211> 389
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(389)
<223> n = A,T,C or G

<400> 821
cagggttttg ctgttaccca gattggagtg cagtggcatg atcatggctc gctgcaacct 60
ccaactcctg ggctcatgcg attctcccac ctcagcctaa gtagctgaga ttacaggcac 120
acgccaccat gctcggccaa cctttttaat ctatttttg tagagatgan gctntnctgn 180
gtgactcant ctgggnatan tctccctnnn taaagtganc cttnaaaatt gnanaacaat 240
tccagtcgtc anccccana ntttangntn nttttnngcc ccnncccccc ccccccnana 300
tttttttntt tttaanaaaa aacaggggga nccaannatg gggccnnnag nnnngctana 360
nacaccgncc ngngnaaaaa nccccccctt 389

<210> 822
<211> 384
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(384)
<223> n = A,T,C or G

<400> 822
gctgattgct tttctgtcgc taaaacctat caggtctgca acatgacttt ctagtagaga 60
ttttccagtt gggccttcaa agcggcaaga tgctttgcag acactaagaa ataataccag 120
ggaatgcctt cataagtatt accataaaca caagcttccc attttccagt tcaaggaagg 180
acacagagat agaattattg tgagtgccca gcaattacaa ctaggaccag aggtgtgtgc 240
caaatcctac ccctaatttc atttacttgg tgtagtaaaa gttaagagtg ggatgttaat 300
attaagcttc tggtttgtct atttagcctt tggcttangn atggtgtgaa agtctatttc 360
tgcaaatgng ataaaaatgg cttt 384

<210> 823
<211> 363
<212> DNA
<213> Homo sapiens

<400> 823
gcggaattgg ccacatttcc agtgtatgtg ccctctctaa ggaaagatga caaagaaatc 60
accgacttct tactgtgttc actgggattt gcctgccact tggttatcat tactgttggg 120
tgaacccgtg aagataacat gaacactgta gccccttaga agggtctcat agagaattta 180
aacagggtga caaggaatct tcacaggaag ggccagaact tctctctccc agttcttcct 240
tccgctaccc tccctccttg gctttttgg ttcagttcca tttttttttc attttgacat 300
gtgggttacc taataagttt tgttctgttc ataattctta tttctcaacc tgggtgattt 360
ttt 363

<210> 824
<211> 363
<212> DNA
<213> Homo sapiens

<400> 824
gggacccttc tggatgacct cttctctgag gcgcccatct cgtgctccca gggagcactc 60
ccatctcctc cctcccaggg gaagtacaca ttgccttatc tccatgtgtc ttaggatcct 120
tcttgtcctt acactggtgt cttcaaacga catgtcctaa aagtaaatgt gggtaagttg 180
aatgacctga gcatccattc ctcagctatt caaaaagtag ggtagtgcc acctatcttg 240
gcagtgtgtt gagggtgccc agcacgtacc ttgccatccc tcgttctgta ggctctcact 300
tccagttcct cagatgaagt acagggcagg gaggagcttc tccggtactg gcatcttaag 360
cta 363

<210> 825
<211> 362
<212> DNA
<213> Homo sapiens

<400> 825
aaaacggcct ggggaccact actcagagga ccctccttct tgctcccttc cttccctccc 60
cgccaggagc ctgtgtggcc tacttcctta ctaagaggcg tgagtaccgc aactccctga 120
acccctttaa aggcctgaag gaaaaagagg agaagaaact tcgaagtcgc cgatatcggc 180
tttttgccaa ccgatccagt atcatgaggc atttggacc tgaggaccaa cgtctgtgga 240
atgatgtgac agaggaactg atgtcagatg aagaggacag tcttaacgag ccaggtgtgt 300
gggtggccgc ctccccgttt cgggcccagc gctcacaaac tctgctacca cctggatgtt 360
ac 362

<210> 826
<211> 361
<212> DNA
<213> Homo sapiens

<400> 826
attcaagacg caagagagcc tggtgtgtga agcgttggca gtagttcagc ctggctagag 60
agtacaaggg gagaggggat gtactgggaa tggtaaacag aggccagata ataaagggtc 120
tgtcttctct gtctcaaaga tagaactctc tctgaatgta ttatagtagt gaaccctatt 180
tttagtagag gcagcgatgt catcgtattg gcgtttcaga aagttgcctt aggctgtgat 240
gtggaaaatg gatttgggga gagcaaaact aaagtcagga aactgctaag ataatccaat 300
tcagtggatt cagtaatatt taaatattgc attcaaatat tcagtgagta tcttctgtat 360
g 361

<210> 827
<211> 384
<212> DNA
<213> Homo sapiens

<400> 827
ggagagaaga cactcttgat gtggaggttt ctgccagtgg ctacacaaag gaaatgcagg 60
cagatgatga actgcttcat ccattaggtc cagatgataa aaatattgaa acaaaagagg 120
gatctgaatt ctcattttca gatggagaag tggcagaaaa agcagaggtt tacaggtcag 180
aaaatgaaag tgaacggaac tgtctagaag aatcagaggg ctgctattgc agatcatctg 240
gagaccctga acaaataaag gaagacagtt tatcagaaga gagtgctgat gcacggagtt 300
ttgaaatgac tgaattcaat caagctttag aagaaataaa agggcaggtt gttgaaaaca 360
actctgtaac tgaattttct gagg 384

<210> 828
<211> 343
<212> DNA
<213> Homo sapiens

<400> 828
atataacatg ggaaccaatg ttatctttaa tgttgcttgt tctggtgaac agagaatctt 60
aagagctgtt agaaagtagc acttgatgca agggatgttt tgaaaagaaa aaattggtaa 120
tgcgaatgta tagaaagtaa aggtaggatg ctcaggtttt ctgcatagtt cttaactaat 180
cttgtctgca gtttggtatt gataatatta gcatggccac ttatgctaaa tacacaataa 240
gatacattta gaaatcctta atgtactggt taggtcagtg gtacaactgt ttgacttaat 300
tatcacaatt tccccaatgg taaccttacc ttggaaacta tca 343

<210> 829
<211> 345
<212> DNA
<213> Homo sapiens

<400> 829
gttcaaaacc atcaaaaaat agtgatagca aggacatgag gaggcacctg gggtgctcgc 60
tgttttctat tattcatctg tggaatggtc acatgggtat atatatttag tgaaaatttt 120
atcttgctat atactcaact atttgtacac tttaatacat gtacgtttta tacttcaaat 180
taagcattta cttacaatgt cagagacttt gatttttgta taacagaaca aaaagtatac 240
agaatgaagt gtgtttctgt tttttgttgg aatttaaatt cttattttgc tcttcgtgtt 300
tgccccttaa aattttctcc tttatagtcc ctctggtgat aatat 345

<210> 830
<211> 340
<212> DNA
<213> Homo sapiens

<400> 830
aaatgagata acaagagtgc tttacttcat ttgattttgg ggaagatgaa ataatttatg 60

ccaagagctt atagcatagt gcttggcaca gagtactgtt caatactgat gtttaatcaa 120
tgctgctgct atcattatta tttttggaaa aaagggaaac aaatatggaa cttaaatagt 180
tcataagggc atagcctcta gcagcctcta cattccaggt agggggcagt gaaaaagagc 240
aggtggaggt caggagttca agaccagcct ggccaatatg gtgataccct gtctctacta 300
aaaatacaaa aattagttgg gcgtggtggt gggtgcctat 340

<210> 831
<211> 418
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(418)
<223> n = A,T,C or G

<400> 831
gggggacggg tcgggacacc agtgaaactt gaaccgggaa gtgggaggac gtagagcaga 60
gaagagaaca tttttaaaag gaagggatta aagagggtgg gaaatctatg gtttttattt 120
taaaaaagaa aaaggaaaaa aaaaaagtca ntancaaaaa ncccagctca anaacccntt 180
ntacnccaaa ctggaangga naananagca ccaggaanat tccanaancg gggggcccca 240
gtttttgaaa aactttatga acttttcaaa nattattttc ntatggcanc aagtgatacg 300
gaaaactgct gtcagggacn cctgatntgg aaatcaaata nattttttant taattganca 360
taanatttag ggatttttcc ananctcgaa agggtcaaca gccctccana atgtcggc 418

<210> 832
<211> 421
<212> DNA
<213> Homo sapiens

<400> 832
gttaatcttc acactagcct ttcaaagtgg ttactgtatt tctgatgaga aaatgaagcc 60
ttgttcagta actctagaat cacttagctg ataagtggtc aatctgggat tcaaatccat 120
atctatttgg cttgaaaagt tgggtgttct tgtcactaaa tttgggaatg agcaggcaaa 180
aagaaacaca tggaaggaat catctcgttt gagggattca gtactctctt agcagtacag 240
tgtgtaaggg aaggggattt gagtttgtta gtcctgttgg tgtttgttag ttgccacttt 300
atcctgtccc actatgattt gtatgcacag gaggaaaaac aaaataggaa ataatctttg 360
gaactcttta tggacattat catgaacaat tagaagaaat ggcaatgtag cttctgacat 420
t 421

<210> 833
<211> 417
<212> DNA
<213> Homo sapiens

<400> 833
gtgagcccag gaatttgagg ctgcagtgag ctacagtcat accgctgcac tccagccttg 60
gtgacagagt gagacccttg tctctgaaga aaagaagaaa agattttatg aaaacgtcta 120
attagaatca agaaagtcaa tttcagacag gaaggaacca ggagcaggaa aagtacagga 180
tttatgtaag ctgtttacac tttggtttaa ttgtggtttg gggttggcat gagacagaag 240
gaaaacagaa gttgaatccg gatggagagt tatgaaagcc aagggtgggg ctttatttgg 300
taagcagtgg agagccatgg aaggttttta atgcggaaga taggagattg attcattcat 360
aagagcactc tggaatgcca tgtgggatga atatgagtga ggcaagacag aagacat 417

<210> 834
<211> 396

<212> DNA
<213> Homo sapiens

<400> 834
aacagaagaa agcaatctta atatgttcac aagaggaaaa cagaaagata ttcaaagaac 60
tgatgaagaa acaactgata atcaagaagg cagtgtggag tcatctgaag agggtgaaga 120
ccaagaacat gaagatgatg gtgaagatga agatgatgaa gatgatgatg atgatgacga 180
cgatgatgat gatgatgatg atgaagatga tgaagatgaa gaagatggag aagaagagaa 240
tcagaagcga tattatctta gacagagaaa agctactgtt tactatcagg ctccattgga 300
aaaacctcgt caccagagaa agcccaacat attttatagt ggccagcttc tcctgcaaga 360
ccaagatccg attatcttcc gcaggaccaa gaagtc 396

<210> 835
<211> 388
<212> DNA
<213> Homo sapiens

<400> 835
gtggaactat aaaaatctgt tcttatataa ggtaatcttt gtgaaaatac ctggtaatat 60
ctacatcacc actaaaaaat gcaatatatt taaatgtgaa ttaagtattt tagtgtataa 120
aacattgcta gtttctactt aaagtttcta aaagggtgtg taggggaaat agaatgagta 180
tgttgaaaag taacataagg aaatatatct tgaggtccaa atgacaaatg cagacaatga 240
ctgctatagg gatttgttaa gaggggaaat gatttaagag atgtcagaag acttcacaaa 300
ggatcaatac tgaggagtag tgttagataa gtggaaggca atgcagtggt aagatagtaa 360
gggaattcta gagctggtgg gtaccata 388

<210> 836
<211> 397
<212> DNA
<213> Homo sapiens

<400> 836
gtaactatta aaaatatatt gcctggaaaa ggaatactac tgttttgttt tgttaagacc 60
acaaactgta ttgctaagga cattttaaga gtctgcttag ccataacact catttaacag 120
catgggtagt aagcatggtt tcttgcagaa aacacaaagt tctcagctaa cacattaaac 180
ttctcacttt atatactttt tttcagagaa atttatcttt agtttttctt attctgtgaa 240
aatatttgtt cttatgtcaa agaattattt ttcagatata ttggtaaaga tggactgata 300
ttaaaagtca tatttattct tttacccct tactgtgttt tgtgattttc atttttggcc 360
caattattac ataacagggt ttcctgatta tatttac 397

<210> 837
<211> 382
<212> DNA
<213> Homo sapiens

<400> 837
gttttgggct gatttttaag tgtacttatg tattttattt taaaaaggta cagatagtgt 60
taagtttttt cttttgatta ttcccaacag ctaatttgta ttagagataa ttttcttatc 120
taattaacct attttatttt aaataggggc tgataaaaat gaacttcaat ttaatcatat 180
cttcattagt tggttgtttt tactgagaaa tcgtagggct cttgaatact ataaattttg 240
aggtcatcct gtggatatat atcagaaagg aagaaacaag ttatcatttg gtacactatc 300
ttcattttgt gtaaaaacaa aagccttata aagataagga cttgttggat tatttatttg 360
tttaaccaat attaattgaa tg 382

<210> 838
<211> 384

<212> DNA
<213> Homo sapiens

<400> 838
gaaagacttt ggaaggaggg tgtggtccag cagatttcgg cttcctccca gcccatcagt 60
gactccttct tcctgctcct ccctttcctc tccacttcta tcccagttca attcctcaga 120
tccaaccaga gccagctgtc aatgaaatac cttctgcctt tcttttctat tacagtgtgg 180
gttagactct gtcaggtagg aaactactcc ccataatcaa actcattatg tttgtgatct 240
cagcatattt gcaaacttag acatagacca gacaataaca tttaccttct ccatttctcc 300
cattctggga tttttagcca aggtaataat aacaataata atacagtatt tagaaggcct 360
ctagcaatat ttcatcttct gaga 384

<210> 839
<211> 382
<212> DNA
<213> Homo sapiens

<400> 839
agtggtcagt aatggccggg cgtggtggct cacgccttgg cctcccaaag tgctgggatg 60
ttttcaaccc ctatttgtct atactctact acagtatcga cttgtgttag ctttttaaaa 120
tcccatcgct acctttaatg tgtaaacgtg tggtcttaga ggaaagatca tgccagcaag 180
aacagattcc acacttagga gggcagaaca aatgatgacc tgatcattag tacaatatat 240
attcattttg agctgaaaat ttttttaaat agcccccaaa ttattgatag cttcattaga 300
attgttttta caaatgtttc atttatcagt ttaagaaaga tcttttgata gcttttatca 360
tatggacctg tggagaatct ct 382

<210> 840
<211> 409
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(409)
<223> n = A,T,C or G

<400> 840
ggaattccaa ataaagtagg agttagaatt gttacaatca gtgaccccaa caatgctggc 60
tgcagcgcaa caatggttgc tgtgccagca ggagcagatc caagcactgt agctaaagta 120
gcaatagaaa gtgctgttca gcaaaagcaa cagcatccac caacatatgt acagaatgtg 180
gtcccgcaga acactcctat gccaccttca ccagctgtac aagtgcaggg ccagcctaac 240
agttctcagc cttctccatt cagtggatcc agtcagcctg gagatccaat gagaaaacct 300
ggacagaact tcatgtgtct gtggcagtct tgtaaaaagt ggtttcagac accctcacag 360
gttttctacc atgcagcaac tgacatggag gaaaagatgt atatncagg 409

<210> 841
<211> 381
<212> DNA
<213> Homo sapiens

<400> 841
agaaatatag taaacataaa tttgcaacaa ttttaaagct ccagttttta ggtgactcaa 60
agaaagtcat tatgcctatt aatagttatt tgatgccatc accaaaagtc tatgtgaaaa 120
tctcctaaag tcaaaacccc tgcctttggt tttacagacg gttattacca ttgggtggag 180
ctgcaaggtc aaatttctcc taagttcccc tatttagagg aaaagtcact ggttattgta 240
ataaaccacc catggttctt tatgtacatt ttgataacac attattatag cttgatttta 300

atttttttgca ttaatttttg aaatccacat acatctcatt tgtttaaatt aaggccatgc 360
acaaatattt tttttagttc a 381

<210> 842
<211> 354
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(354)
<223> n = A,T,C or G

<400> 842
gaaaaatgag taggagatga ctgagagctt aaagtttggg agtgtcaatt aactcagcat 60
tcttttaaaa aacgtgtcat atattacagc attttctttt atttgaagtg agtaaatgta 120
tctttttaaa ttccttagta atttttgagc actccatatg tataaagcat gtgaatattt 180
ggtagcattt tacaaatgtc cagagatttg tgagagttcc tgagatcttc ataggggggcc 240
cacaaagttt agtattactt ttcacggtaa tactaaagtg tattttgcct ctttttactt 300
tttctcttaa tagcatacag tggtaactga aggctaatag tatgngnggt tatg 354

<210> 843
<211> 386
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(386)
<223> n = A,T,C or G

<400> 843
ggagcttgcc tttggctttc caggtggctc cgtgcagcta cagccaggcc ggctgcctca 60
tctcagctct agggggcacg agccatatgg ggtctgcaca agagaccctc tcccctgcag 120
taaagccagg ggccctggcc tgatggggcc cccatgggga gctggagcct gccctgcagc 180
ctggagaaga gggtggctgt ggtgggcgtg ctcatcccct gctaaggagc aggagctgct 240
gggccaggtc tgcggcagtg ctggggtggc accaggtggg cagtggtagg tggggtggct 300
tgaggtctgg gagggnggcc ctggccancc aggacacatg canancccctg ctttagtctg 360
gatacaggct tcctttttttc ttccaa 386

<210> 844
<211> 360
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(360)
<223> n = A,T,C or G

<400> 844
cccaaatctg tagattttaa aggtaaaacc gacttaagct aaacttctct gaagagaatt 60
agtacttgtt ttggaggtag ggagtgggat agagaactta aatgagaact aaacagtgcc 120
agacctcatg ctgtcttctt gattttcttt tctgctttct gcttttgtgt ttgcttttgg 180
tgtgtgatgg attactgatt tttttttctt ttgtttagat tggtatagtt ggtttttttt 240
tgcttttttt tttttnaaan ggnngtnnnn ntttttttncc cggnnggnng gnnaaggggc 300

cctttaant tnntggaacc ntngcccccc cggntcnagg gaatcnccnc cncnccccc 360

<210> 845
<211> 340
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(340)
<223> n = A,T,C or G

<400> 845
ggtcaggctg gtctcaaact cctgacctca ggcgatcagc ccgcctcggc ctcccagagt 60
gctgggatta caggcgtgag ccaccatgcc tggcctaagt ttggccaact tttaaacttt 120
gttttctctt atgagtttta tttaatcatg aatttctgag aattgctatg agagactgct 180
tagagtttgt ttagggaaaa caaaatatga ataggagtat aaacttacca ttcttattta 240
tgtcatgtaa ataatgntgg ntgntcttct cgaggctatt tagttcagtg aattagaaca 300
tagtgcccag caaaaagccc aangnctcag ctttgatcct 340

<210> 846
<211> 344
<212> DNA
<213> Homo sapiens

<400> 846
gatcaacatt cctgatatgt tgaaattata tggcttgaaa tgatcaacat ctcctttgct 60
tctgtctctg agcagtccta aatcccgtta attcctgctt agaattcctc agatcaccct 120
ctcctttccg tctcctctgc caaccctcaa tcacgcttat tacctctcgc tggcatgtct 180
gaaccctcct ggctttccct cttctaaaca agtcagccac atttaacttt ctgatacaat 240
attttaagaa catcatgttt taaatatatt caactataat ttgtcaattt ctaattttaa 300
aaataaaaat tgaaagagca tcattttttt cctcagaaac cttc 344

<210> 847
<211> 417
<212> DNA
<213> Homo sapiens

<400> 847
gaaaaaatgg atggttacat ctctactaaa tatgtgcagt ccttttattt gtcattattc 60
tctaaacaat acagtataac aactattgac atagcattta tattgtatgt attaggtatt 120
gtaagtaatt tagagatgat ttaaagtatt ttacataagg gacttgagca ttcctagatt 180
ttggtaactg cagagggtcc tggaaccaac cccctacaga tatcaaggga ccactataca 240
cattaggatg atctatattg aaatctacat ggaacagagt gggacttcta attgtatgac 300
ttcaagattt tgctttgttt aaattaataa ctgttttcag aattaagtgc ttaaaaacaa 360
atttgattga aaagttcaag acaagaattt tgctctctat ggctgttcca tataaat 417

<210> 848
<211> 397
<212> DNA
<213> Homo sapiens

<400> 848
atcctaggtc cctggtacct gccaggtatc tctagcccag atctttctct tgccccagac 60
cccaactgcc taggggcagc ctcacagtgg ctgctatagc aaactaccac gtacttaccg 120
ccttaagcgg cacaagttta tcttatggtt ctggaggtca gaggtccaaa atgtctctcc 180

ctggtctaca aatcaggtgt cagcaagctg gttcctcccg gaagacctag aagagaatcc 240
gtgtcttgcc ttttgcatct tctagaggct gcctgcattc tttaactcat ggcccctccc 300
tccatcttca ggcccacaga tgagcatctt cccatctctc tgactgattc tcctgctccc 360
tcttacaaaa actctagtga ctacactggg ccacctg 397

<210> 849
<211> 410
<212> DNA
<213> Homo sapiens

<400> 849
cctgagtggt atacacaaag caattgagga acaacctagg accttgtagt ccattaggat 60
ttccaaaaat agaaagagaa tggaaagtca cctggctagg agaagccagt ggaaacttga 120
cacgaagaaa aaagagcagc taatttcatt cctgtccacc agttatttat gtgtttatct 180
ttaattacat ttgtttgatt tcccttatta aagtctgatg tctataaaaa agcagaaaag 240
tgaggcaggt cagcagggga tgtaagttgg gaagaaagac aggtgagggc aagaatttag 300
gcaggagcca cagtgttggt tgtgcaggtg aaggtcaggt gacgagggta accagtcatg 360
gatgacccag gcaggagcca taaccaaaat gttagaaaaa gttggtaaga 410

<210> 850
<211> 386
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(386)
<223> n = A,T,C or G

<400> 850
gagaatgggg aagaaaatta ttttattgat accaacagcc aggattctta caaggaaaaa 60
gatgaagcca atgaggaaag tgaagaagag aaatctgttg aagaatcaca ctgaatcatc 120
aaggtctcct ctctatgccc ttgctgttgt ttgcagcgtc agggtgtcag cagccgcatt 180
tgtgtttaga acatctgtgg ggacgcttct gatatgtgca gggctgttga tcaaagtcat 240
ctgtagcctg aaaagcctga atccagctga ttggtcattt gatcagttag agtaaggctt 300
tgcctattca gttttaaaaa tcattgtgta ttatctgntt gcaactatga ttttgtattt 360
ttaaaaagtg agaccacagc tgtccc 386

<210> 851
<211> 382
<212> DNA
<213> Homo sapiens

<400> 851
agcaaaggct ccttgtctgg ggcgggatag agaatctcgc ctctgtctgg tgtgttacct 60
actgggggca caggaacaat ttcctcaagg agacagtggc atggagcttt gaaagacgag 120
taggtgttag caaggaaata aggaggaacg ggggttacgg gcagaggaga aagcacatgc 180
caagtcagca aagaaaagta gaattcgaaa actttttaaa aatattacta aggattttca 240
caatgctgca ctgggctaga aactgaagct aaaacagata cgtggtccct gctgctatgg 300
ggcttccgtt ctagaggcaa ggacaggttg tgatgagggt tctgaaggat agagaccaag 360
cagggagggt gttgaggagg ct 382

<210> 852
<211> 351
<212> DNA
<213> Homo sapiens

<400> 852
gatctccgag acctgtctga actggaagag aagctaaaga aatgtaacat gaatacacaa 60
ttgccaacac tcctgatagc tgaatgtgtg ctggtttaca tgactccaga gcagtccgca 120
aacctcctga agtgggcagc caacagtttt gagagagcca tgttcataaa ctacgaacag 180
gtgaacatgg gtgatcggtt tgggcagatc atgattgaaa acctgcggag acgccagtgt 240
gacctggcgg gagtggagac ctgcaagtca ttagagtcac agaaagaacg gctcctgtcg 300
aatgggtggg aaacagcatc ggccgtcgac atgatggagt tgtacaacag g 351

<210> 853
<211> 345
<212> DNA
<213> Homo sapiens

<400> 853
ctgaaaggaa atgtgccaaa atattagcaa ttttttttt ctgagtgatg agctttctgg 60
tgataatttt tatttacttt atggatttta ctcctttcca attacttata taatagacat 120
ataatagtat tttttaagaa aagtgttatt tttataataa ggaaaagtac catttaaaaa 180
cctttagtgg ctcccatttg ccaattaaaa atcctctcta tgacattcaa ggttttggca 240
atactgctac aatccttctg acctcaccct cttctctctc tgccctcact ccaagaaaca 300
gcagcagaac ggagttaccc actgtcacca aatacatttg ggctt 345

<210> 854
<211> 377
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(377)
<223> n = A,T,C or G

<400> 854
gctggctact agtatatgta acaggactat tatagattaa caaaaatgcg gggagtatat 60
ttcttgatta ttttttaaaa gaataaatta ttatttaaaa atacatgaat tatttattga 120
ttcttgaatc tttaccagct ttctataatt ctaggaagcc tataagcaga nttgggcagg 180
atnnactggc anaaaatgta aaaagtaggc cnggcacggn gggctacagt gagtcgtgaa 240
tgcgcagtgc acctgagtga tagatcaaga tcctgtctnt ttanacnant nnnaacnann 300
tanananga ngnantccnc ccctgacgng aaancnaann atnttttnn nggntttaac 360
nngaagnngg gtngttc 377

<210> 855
<211> 350
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(350)
<223> n = A,T,C or G

<400> 855
gtattttgag ttgaaacgtt gatgggagat gcttataagc tgacgaattt tttttgtaat 60
gactgttatt tatgtaaaaa tttaaaagcc tcatttaaaa atgaccttcc attaatttgt 120
tcctcgatag caataatctt tgcaatagtt tgaaccagtg tcattttaca ggttagaacc 180
cggcatgcaa atttaaagtc ttgtttacat ccttgtaagg agttggatac aaagctgact 240
aaaagccagg tctcttagct gtcactgctg ttccctttct ttaaaacgtt aatacctgat 300

agatattgtt gctgtatatt tacatacacc tctgctaatt tgntgnctta 350

<210> 856
<211> 355
<212> DNA
<213> Homo sapiens

<400> 856
aacaatttaa atgaaggctc aaaggatgag agacatcagc catatgaaga ggtgtaggca 60
gaacattcta ggcaggggga gctgtaagta ggcaactaaa gtgccagcac cattaaataa 120
aatactgctt atgtggagga gaaaagctca aaactcattt gttgtcaaaa gttgacaagc 180
attcaagaat aatggtgaga atagcctgct taatagcatt attccatatg caggttgatg 240
ccgccttacc tttggacatc ctaacctatg aagagaagac cttgtcagcc atcttgagaa 300
tatgtagcag tggtcttgca aattgtggag ctctttgacc ctggtaggat cctat 355

<210> 857
<211> 377
<212> DNA
<213> Homo sapiens

<400> 857
tactgatagt aagtttaaaa tgtagaaatt gaccagtaga tttattgtac tgaggatgat 60
tctgtagttt aggagacatg actagaattt caatgagaac agattgtaag gacagaaata 120
aataaataaa aagaatttct aaatgatttt gttaaatgca ataacaactt tatgtaaact 180
acagatgaac tgataataga gcacatgtaa gaaaatgtct aaaaaatgtt attggaaata 240
aaattagagc tgtaaatcat taacaaggaa aaaacattaa cttatataca atttattttt 300
tccatatttc ttaaaatata ttaaattcta acatagaaaa ccacttaaga gatttaaaga 360
ttcccatcta ctcagat 377

<210> 858
<211> 337
<212> DNA
<213> Homo sapiens

<400> 858
gaaagttcac atgtagttga gtgtgctttt taaactctgg gcctttgcac aggctattca 60
ttctaccagc cacacacctc tctccaactc ctaactcata cttcaagttt cagtttggaa 120
gcccctctgt tttttggaga tggcatcttg ctctgttgcc caggctagag tgcagtgacg 180
tgacttcagc tcactgcagc ctctgcctcc tgggttccag caattcgcct gcctcagtct 240
cctgggtagc tgggattata ggtgcatgcc accataccca gctaattttt gtatttttag 300
tagtgacagg gtttcaccat gttggccagg ctggtct 337

<210> 859
<211> 350
<212> DNA
<213> Homo sapiens

<400> 859
aattaaaggc gtgagccacc acacccggcc aatttttgta tttttggtag agatggggtt 60
tcaccatgtt ggccaggctg gtctcaaaca cctgaccttg tgatccgccc acctcggcct 120
cccgaagtgc tgggattaca ggcatgagcc accgcgcccg gccattcttt gagttttcat 180
caaccagtgg atacagaagt gtgctgccca ttttgcagat tagagaattg aggctagtaa 240
ataagtcggg acttagttga tgcccttgct ctttgagttc tgggctctgg aggctttgga 300
ttcaaagccc tgctgcacca tttactcatc atgtgacttt gggaaggtga 350

<210> 860

<211> 341
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(341)
<223> n = A,T,C or G

<400> 860
ggaggctgag gcatgaggtt tgcttgaacc tgggagatgg aggttgcagt gagccaagat 60
ggtgccatta cactccagcc tgggtgacag agcaagactc catctcaaaa aaaaaaanac 120
accaaagatn ttattaatcn ctgancnctn ttttntntca attataagta attgaaaatt 180
ntaatcancc tcctatttaa ttaattaana attgatttaa tgattnagtt naaaangtta 240
aattcntttt aaaanaaccc attacatgtt aacncaaata gcangttttt attttatttt 300
attttganac aaagtntcnn tntgttgccc aggctggagt g 341

<210> 861
<211> 396
<212> DNA
<213> Homo sapiens

<400> 861
ttcagattag acttcctgtt tatcttttat attcttgcat tgatataatg cctgatcctt 60
caaagttctt tcacatatta tatgatcttc tttatgaaaa aaagtagatg ctttattctg 120
atatattcag tttcccactt taggcaaaag tggattaata gaatgatgaa ttcaaagtag 180
atgaggaaaa tcaggcacag agaagtaaag gtaggtacag acccaaattc acacaagata 240
atgacatcac cagcgtttaa gttgatcatc aaaggctggg ctggatttgt cttgctgtat 300
gtgtcaggaa atttatacct attacatttt ccatttctc aaaataagtc acatgattgt 360
aatgtttagc tgcaactttt ctcctaataa atagtg 396

<210> 862
<211> 390
<212> DNA
<213> Homo sapiens

<400> 862
gcaaaacctg tctggaagga gcataggaaa tggctttagc taagtgcctg actccagtag 60
cttcttgctg ttgccacagt ttcattagtg ttgattctca atgttgtctg ctgatgttgc 120
taaagcagcc acacagtagc attacaaagc ctgtgggaat tttaatagca ccttcataaa 180
tatatttagt agtatatgta gaaatatgac ctatacagca ctggctatct attagattca 240
cctggggagc ttttaaagca cacatgctcg ggttctacct gcagcctact gaattagaat 300
ctctgggtgg gatgaccatc tatattttta ataaaagctc cacaagttaa ttctgatgca 360
cagaagatag acgaaccatt actttaacat 390

<210> 863
<211> 401
<212> DNA
<213> Homo sapiens

<400> 863
atcggctgtt tgtgaaataa agaagaaaat ttgtgaaata aggaagattt gtgctgcaga 60
gttctttagg gatacgggct gcagctgccc aggtgatgag cttgaagaac ctaggcccgg 120
ctggcagagt ggagaggagc tgggagagac agctgctttt acgactcttt catgttctag 180
cagacgccag atgcgaggct tctccttaca gggaagggtt atgtttgatt tatcatacat 240
ttctggagtt tttgtttagt ttttgttaaa tgcaaagctc tgtgctggac attgtgagaa 300

acaggaagtt gaacgcccat aaggagttta gaatagaagt ggaagaagtc agtaggtgcc 360
caaatgctat ttgagggttg aataaagaat gggtagaggg g 401

<210> 864
<211> 371
<212> DNA
<213> Homo sapiens

<400> 864
gggcatccgg gcaccgccgg gccgggaggc aggaggcggg gtgtccgggc ctggccctgc 60
ctttttttcc atgtggttct ctaaacctct tgttcgtaaa aagacaaaaa aacaaaacaa 120
caaaaaagcg aaattggaac aagtaaaagt caaatcgatt cagcaaatat ttacggtaca 180
gcgcagttgc aggagcccct ccgtcggagc gagtaggcca gtggggaccg aagtgctgag 240
agctggccgg gtcgctggga ggggtccccg cccgggggtg gaagggacgg gagcctacag 300
tgagtgatag aaacgtggag ttcttgatta ttttacacga aattttgaat tattaaactt 360
ctttttctta a 371

<210> 865
<211> 351
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(351)
<223> n = A,T,C or G

<400> 865
attcttctca aatgcacatg gtctattctc caggatagac catgtgttag caagtaaaac 60
aaacctaaat aaattttaaa ggattgaaat acataaagta tgttctctaa ctacagtaaa 120
ataaaattag aaaccaatag cagaaggaaa tttgggaaat tcacaaataa gtgaaattta 180
acctaccttc ccaaataacc aatggattaa agaaaaaaaa aagaaattag agagtaagtt 240
tttgttggat tttgttttgt tgtttttgan acagggtctc actctgtccc tcaaactgga 300
gngcaggggc anaatcatag ttcactgcag ccttgaacct cctgggctca g 351

<210> 866
<211> 406
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(406)
<223> n = A,T,C or G

<400> 866
ctgcacgtgt ggtgaggcct acagaagcgg ccttcagctg gaccttggtc tccccgccgg 60
acttcgaggg tgtcatcgcc gcccctgttg ggggtgagcg ccgcgcggct gcagcatgcc 120
tcacaggaag aaaaagccct ttatagagaa gaagaaagct gtgtcttttc acttggtcca 180
ccggagccaa cgagatcctt tancagcaga tgagagtgca ccccagaggg ttctattgcc 240
cacacacaaa atagacaatg aagaaaggcg agcagaacag aggaagtatg gagtgttctt 300
tgatgacgac tatgactacc tgcagcacct gaaggaacca tctgggcctt cagagcttat 360
tccctcaagt accttcagtg cacacaacag gagagaggag aaagat 406

<210> 867
<211> 358

<212> DNA
<213> Homo sapiens

<400> 867
ggcgcttgag gacaccctgc agctgtgcca ggctgcactg ggggccagtg aagcaggcgg 60
gctcttgcag ttggacacgg ccttcgtgtg acgcagctga aaagcaacaa caaaagggtt 120
tggttgcaac agccagtgtg ggtacctctg gggagagagg acctcctctg acaaactggt 180
ctggtaccca ccatgtgcca ggatccaccc tggcctcttt ttacccactg actccccaga 240
acaacccttc caggcttctc ttgtcatctt tctctgcctg aggggaaact gaagctctga 300
aatgcgatgt gatctgtacc aggtcaccca gctatgctgc aaaagtgggt tggccaag 358

<210> 868
<211> 381
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(381)
<223> n = A,T,C or G

<400> 868
gccttaacct gggagtggcg agggagtgat gcatctgcca aaacgaggag ggtcactaca 60
tctcatgtct catctccttg ctcagctcat cctagccatg ctggcctcct ggctgttcct 120
caaccagcta gtcgtgctcc ccatctcagg gcctttgcct ggatgctctt tcctggagat 180
cttggctatc ctgtcaaaac ttgtgttccc caccccgcct ttatacactc cctattctat 240
gtattcctta ccattttcag acatactgtg catcttattt tgtttcttga caggctagaa 300
agcttcaaga ggggnggggt gggctcttat tcatttccat acatattact atgtactgac 360
ttctgcctgc ctttttgccc t 381

<210> 869
<211> 348
<212> DNA
<213> Homo sapiens

<400> 869
ctagactcta tgattgacag ggtgaccagc tgtcccagtt tgccctgggg cacaggatta 60
ttcgtgctga aaatgagaaa gtcctgggca acctgggatg aattggccac cttcactatt 120
gatccaactt cccaaatgct ttgtctacat tgctggtatc tggctcggag gaagccctgt 180
gggaaaggct gtgagtgtgt tgccccaggt tccacaggac acttagagtt tggggacac 240
ctgccgtcaa cgcactgcaa caatctttag ggatgttaat tgttcctcag gaggcatacg 300
taggaatcac atccacctta aacatgccca cttatggcat ttgggctc 348

<210> 870
<211> 395
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(395)
<223> n = A,T,C or G

<400> 870
gtcagaacag ttaaacactg cctttcctcc tcctcttatt ttatgataaa agcaaatgtg 60
gccttctcag tatcattcga ttgctatttg agacttttaa attaaggtaa aggctgctgg 120

tgttggtacc tgtggatttt tctatactga tgttttcgtt ttgccaatat aatgagtatt 180
acattggcct tgggggacag aaaggaggaa gttctgactt ttcagggcta ccttatttct 240
actaaggacc cagagcaggc ctgtccatgc cattccttcg cacagatgaa actgagctgg 300
gactggaaag gacagccctt gacctgggtt ctgggtataa tttgcacttt tgagactggt 360
agctaccatc ttatgaatgg ccatgggnca tttaa 395

<210> 871
<211> 388
<212> DNA
<213> Homo sapiens

<400> 871
ctttgcttct ctctttcttt ccttgtgtct cttccttctc ttttcttttt ttttttaaca 60
tatagggtat ttttttcttt taacatatag ggaattaacc ttcattttgt taatttccat 120
ttgttccctt cttcattcat gtcatctctg ctattccttc tccctccaaa agggagggaa 180
accctatttt ttttttccca aaaccatggt gggtctgctt ccctcactcg ggctccttga 240
cagtcttcta aaaaagagaa ggaggaaaaa aagcagttcc tgatgttaca aatgaacaag 300
gatctcccag gtaaccagct ccccacaccc atttctgtta ctaatttctc aaacagaaat 360
ttctggttcc ccttcttcct tatcactg 388

<210> 872
<211> 396
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(396)
<223> n = A,T,C or G

<400> 872
gcgaggaaga aatggaggat gagcaagaaa gcgaggccga agaagacaac caagaagaag 60
gggaatccga ggcggaggga gaaactgagg cagaaagtga atttgaccca gaaatagaaa 120
tggaagcaga gagagtggcc aagaggaagt gtccggacca tgggcttgat ttgagtacct 180
attgccagga agataggcag ctcatctgtg tcctgtgtcc agtcattggg gctcaccagg 240
gccaccaact ctccacccta gacgaagcct ttgaagaatt aagaagcaaa gactcaggtg 300
gactgaaggc cgctatgatc gaattggtgg aaaggttgaa gttcaagagc tcagacccta 360
nagtaactcg ggaccaaatg aagatgttta tacagg 396

<210> 873
<211> 347
<212> DNA
<213> Homo sapiens

<400> 873
ggaactttga cagtgaaata aatatcagaa atgaaaactt taataaatga aattaacagc 60
tgattagatg tgtagaagaa aaacagctgt ataacataga aatagaaaag acccaaacta 120
aaacacaagg aggaaaaaag agcttcagtg acctgtggaa cagtatcagg cagtgtgaca 180
taacctagaa gtcccagaag aggaggagaa gaaggtgtga agaaaaaaaa tatttgaaga 240
aacaatggca ggcaatgcca gaaaatactt caaatgtggt aagagcaata aacccacaat 300
ttgaagatgc ttaataaaac tcaagaaaga taaagaaaac catattg 347

<210> 874
<211> 350
<212> DNA
<213> Homo sapiens

<400> 874
ggaactttga cagtgaaata aatatcagaa atgaaaactt taataaatga aattaacagc 60
tgattatatg tgtagaagaa aaacagctgt ataacataca aatagaaaag acccaaacta 120
aaacacatgg aggaaaaaag agcttcagtg acctgtggaa cagtatcagg cagtgtgaca 180
taacctagaa gtcccagaag aggaggagaa gaaggtgtga agaaaaaaaa tatttgaaga 240
aacaatggca ggcaatgcca gaaaatactt caaatgtggt aagagcaata aacccacaat 300
ttgaagatgc ttaataaaac tcaagaaaga taaagaaaac catattgagg 350

<210> 875
<211> 398
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(398)
<223> n = A,T,C or G

<400> 875
gaaggaagca atggttcagg cagaggaagc ggctgctgag attactagga agctggagaa 60
acaggagaag aaacgcttaa agaaggaaaa gaaacggctg gctgcacttg ccctcgcgtc 120
ttcagaaaac agcagtagta ctccagagga gtgtgaggag acgagtgaaa aacccaaaaa 180
gaagaaaaag caaaagcccc aggaggttcc tcaggagaat ggaatggaag acccatctat 240
ctctttctcc aaacccaaga aaaagaaatc tttttccaag gaggagttga tgagtagcga 300
tcttgaagag accgctggca gcaccagtat tcccaagagg aagaagtcta cacccaagga 360
ggaaacagtt aatgaccctg aggaggcang ccacagaa 398

<210> 876
<211> 369
<212> DNA
<213> Homo sapiens

<400> 876
gtttttattt gtgaactctg cgagttcagg agccatgtca gtcaccattg taccccctgtg 60
cctggtggtt aacaaatatt gatcaacaaa ctggaggata taattatcat tactccattt 120
ttcagatgaa gaaacagaaa ctcagagcaa ctaaacattt gcccaaatga ctccaactgt 180
aggtgtcaga caaaagaaaa gaaaaggact tttaggtact ttgggggatt ttcaacaagg 240
catttttttt taaactatag ccccaaagaa gggaaacaaa ctggtaaatt cggttctagt 300
tatgccccac tttgaccggg ggtggggtct ggaagcaggc ttttgtgccc tggtgcaaag 360
cacctaatg 369

<210> 877
<211> 386
<212> DNA
<213> Homo sapiens

<400> 877
gctgctccga gataagcata cccttcaaaa aactctcact gctttgggct tggatcgcaa 60
gccagagacc atccagctca tcacccggga catggtccga gaactcattg ttcccacaga 120
ggatccctcc ggggagtccc taatcatcag ccctgaggag tttgagcgaa tcaaatgggc 180
atcccatgtc ctgaccagag aagaacttga ggccagggac caggccttca agaaggagaa 240
ggaagccacc atggatgcag tgatgacacg aaagaagatc atgaaacaga aggagatggt 300
gtggaacaac aacaagaagc tcagtgacct ggaggaggtg gccaaggaac gggcccagaa 360
cctcctgcag agagccaaca agctgc 386

<210> 878

<211> 345
<212> DNA
<213> Homo sapiens

<400> 878
ctttttaaag gatttagtag attatgtcat ttctctattc ctgttctccc tatagtaggc 60
ttcctatgtg ttacatttag aataattttc agtgtcctta ccatggtcta caaagaacct 120
tccaagtttc tgcaactcac tgtaggtgat acgtgtttga gactcaacac atgcacacac 180
acatctgatg caaaagtttc acaaaacagt actatcctta ttgtatgaga tgtactctaa 240
tattcttctg tggtatttta atgaaataaa atagaaaatc ctgttcttga tcttctaact 300
tgattttgct accaatgtgg agacatagtt taaaagaaca ctgcc 345

<210> 879
<211> 408
<212> DNA
<213> Homo sapiens

<400> 879
gggagcggtc tggggagaga gagagaggca taggcaaagg ccctgtggca tggtatgggc 60
agaaccaagg gagaagatca gtgtggctgg agagcagaga acagagttga aacaaggctg 120
gaaggtaggc cagtctggac caagcagcct tctttcaact atgtttccag tgtgtttggt 180
gaacaagggc ctcagaccac tcttaagtag tatgttacat tactccttta gtaggacatg 240
gcgccttgtc tctgacaggg tctatgtaca ccctacaggt catctggaat ctcatttctt 300
cagaagaatc tcctctttca ttccagtcca atagtgacag cccaaaagta tgtttggaag 360
tttattcaaa agtcacgtgt tggccggaca tggtggctca cacctata 408

<210> 880
<211> 354
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(354)
<223> n = A,T,C or G

<400> 880
agttaagcag tctagttctt cggcctcata ctgtcactgt gggtttgtat acgtagaact 60
ttgttgtacc tttttaaaat aaaacctgaa gccttagata tgtaaattga ttcatttaaa 120
cttactttct tttttttct ggagacagag tcttactttg tcacccaagg ctggagtgtg 180
cagtggtgtg atcttagctc attgtggcct caacctcctg ggctcaagtg atcctctcaa 240
ctcagcctcc cggttagctg ggaccatagg tgtatgccac cacaccccgc taattttaaa 300
attttttgta gaggcagggt tttgccatat gcccaggctg gnctcaaact cctg 354

<210> 881
<211> 422
<212> DNA
<213> Homo sapiens

<400> 881
acggaagttc cgagcccggc cccatacctt taccagctgc ttggccttgc acttaaccag 60
ctctcaaccc tcagttttct catcagcaaa ttgggtataa tatttatagc cctgcttcaa 120
agggttgttg gttctctcaa ataagatgat atatttaagt gacttacaag tcttattagc 180
cagtagcaac aaatcgctta cccaaagaag ttttacaggt tacatgtgtg agccagcccc 240
aggcatgtag tcacagtgtg tgtcagaggg cacagttgct tcctctcagt caccaacaga 300
aatcatatgg aaattttcag agacccatga acagccaaag cattataaat gctttggtaa 360

catggatttt gcatataagc atttatgtat ttttttcctg acattagata cttacttcta 420
ag 422

<210> 882
<211> 373
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(373)
<223> n = A,T,C or G

<400> 882
gtttccaaga ggagggaggc atgccacacc atgcaggcca tgtggagaag cacaagggtt 60
ggtcaggagg cagaagtagc aaggagaagc atgggtgaga gccttttat atagtggtgg 120
gatgttccct attggacaga aagtgaaata ccgatgttgg ggtttgtagt tggagggttt 180
gtaatataat tnccaagngc ccacnccang acaggaatgg tgaggatgtg gacaactttg 240
gctgttnttt tngtccatga tttcnagatg cnaanttttt tnntanaata tcangaagga 300
ttattatatg cctgcatctg ttttggctat tatgnctcct angnganaaa ttgctntnnt 360
ggaggaanna tta 373

<210> 883
<211> 387
<212> DNA
<213> Homo sapiens

<400> 883
gaagaattcg cggccgcgaa ttcttcagtg gattgccacc aagtccagtt cccagtccaa 60
gacgattttc aagcaggaga agtcagagtc cagtcaagtg cattagaccc agtgttcttg 120
gtcctcttaa aagaaaaggt gaaatggaga cagaaagtca gcccaagaga ctcttccaag 180
gcactaccaa tatgttatct ccagatgccg cgcaactgtc tgatctcagt tcatgttcag 240
atattttgga tggcagtagt agcagcagtg gcttatcctc agacccgctg gctaaaggca 300
gcgctaccgc agagtctcca gtagcatgct ccaattcatg ctcttcgttc atcttgatgg 360
atgatctctc acccaagtga cttaacc 387

<210> 884
<211> 396
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(396)
<223> n = A,T,C or G

<400> 884
ggatacgcag acaattcctc aactgcagct ccctatgggg gagctctcta atcatctgat 60
ggtcatgnnn nttancgcct tnacccttna nntgantcat nccttatgac atgactnctg 120
ccatttatcn tgagatcttt tatgtngcct ttgcngaatn cnttnttgct gaccctcctn 180
attgnctnta tgantngccn tgtgggaacc tatnntatgt tatnaagtna ctntgngnan 240
agagncncng cnttatnnaa gattgccttt gactcattga cccatttggn ggaaaaagnt 300
nanctatttg cntggntaaa nnatnagctn ntncgnattt ttctgggccn cnaacaacna 360
anaannnacn gtcgtttttc nttgnccncn nggaaa 396

<210> 885

<211> 397
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(397)
<223> n = A,T,C or G

<400> 885
ggctgaaaga gttttgaggt gcatgctaga aaaagcctat ggtgctttga agggactctt 60
cgcagaaata taaatgctaa gggtgattct agtgaggtct caggtggaag tgaaaaacat 120
gttattagaa gctgaaggaa agacattctt ttcataaagt ggcaaagaat ttggatgaac 180
tatttgtttt ttattatttt ggagaagaga gaacatgttt tctagacgtg ttgataatct 240
ggccttattt ctctttagtt cttagagtaa aatgcaaaag gagagagaga aactgaaaaa 300
tttcttggct gggtgtggng gctcactctt gtactctcag gactttggga ggccaaggca 360
agatcgcttg aactcgggag tttgagacca cctgggc 397

<210> 886
<211> 404
<212> DNA
<213> Homo sapiens

<400> 886
cttgtggctg cggcctgccc ctcagcctcc tccgcgcggt taccccctgta cccgccgcca 60
tccgtcctgg cgctccggat gagtcaatga ggggcagggc ccgaggagtg gtcttcccaa 120
gaacccctgg tggcctccca aggccggtgc tgtgtacctc ctcccccgaca aaaggggaaa 180
ctgaggcccc gaggggagtg ggaagagccg gctggacgtc aggcccagcc gctggtgcag 240
tggtccgtcc cctctgccgg ggtgggcccc tcgggtttcg cgtgtcctcg ggaaagagac 300
tggcgggtga gccgcgccct cggccttcgc tgggctaagc cgaccccatg cagacgtcaa 360
acccccctag gtcggcacag cctctctgcg gggaggctta atgg 404

<210> 887
<211> 357
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(357)
<223> n = A,T,C or G

<400> 887
ggagccctgg gtgggctcgg agattagggg cacccccatg atggtggtca tgatgccccc 60
acctccacct ccagtccctc cagcagtgca gcctccgggg gcccctccag tcagagacct 120
gggctctgtg cccccagaac tgacagccag ccgccaaagc ttccacatgg ccatgggcaa 180
tcccagcgag ttctttgtgg atgttatgta gcccactgtg gggccaggct gggccgggcg 240
ctcctggtgt gtgactgggt gtcctggccg tcatgtgctt gctcttacag tgcctgggct 300
cacctaccag ctgctgcata caggagattg tggccactgt gactatnacc aacaagg 357

<210> 888
<211> 392
<212> DNA
<213> Homo sapiens

<400> 888

ggaactgaga agtgggtggt tgggggagtg gaagggagtt tcccctgccc tgtgcccaca 60
gtgcaatggg caaactcctg cctctggcac cccccacctc tcccacccag gcccctggtc 120
agcaggctca catgagtggc ggtacagctt gacactgttg gtatatagga actccagcac 180
tgccaggaag gcctcagttg gcacagtgct tagcaccaca ggactgggca ccccggggcc 240
tggctctgtg cccagaagtc gctggaagaa gttgcatcta caggccaaca agcaccgatg 300
ggcaaatacc tcctgccgtt cttgaccaac cacgaagcaa acatcactgt gggagacagg 360
cagagaggca gcggggagga ggccaacacc cg 392

<210> 889
<211> 409
<212> DNA
<213> Homo sapiens

<400> 889
gccggcctgg tgatgaacac cattcaacac tggcctgtgt ttgtggaggt gaaagacctt 60
ttgacattgg tgccgcccct ggtgggcctg aaggggaacc tggagatgac actggcatcc 120
agactctcca cagctgccaa cactggacaa attgatgacc cccaggagca gcacagagtc 180
atcagcagca acctggccct catccaggtg caggccactg tcgtggggct cttggctgct 240
gtggctgcgc tgctgttggg cgtggtgtct cgagaggaag tggatgtcgc caaggtggag 300
ttgctgtgtg ccagcagtgt cctcactgcc ttccttgcag cctttgccct gggggtgctg 360
atggtctgta tagtgattgg tgctcgaaag ctcggggtca acccaaaca 409

<210> 890
<211> 334
<212> DNA
<213> Homo sapiens

<400> 890
gtaccttcaa aaggacacaa tgtaacaggg ttagggaaac agaagtccgc agggcctccc 60
taatgtcttt ggagcttaaa ccccttgtat atttgcccct tttcaataaa cgccccacgc 120
tgatagcaca gaggagcccg gcatgcactg tatgggaaag cagtccacct tgttacagtt 180
ttaaatttct tgctatctta gcattcagat accaatggct tgctaaaaga aaaaaagaaa 240
tgtaatgtct ttttattctc aggtcaatcg ctcacacttt gttttcagaa tcattggttt 300
atatattatt gtttttcag ttttttttt tttt 334

<210> 891
<211> 467
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(467)
<223> n = A,T,C or G

<400> 891
tctagaatac aagtttcncg ctctntnatn caggatccca tcgattcnaa ttncgcngct 60
gacggtacca cacacttctt gaaccctgat actgtactta atatatcact gtcttccata 120
atactgccct aggtcttttt agtttttaag agaccgggcc tcgctatgct tcccatgctg 180
aactcaaatg cctgggctta agcaatcctc ccacctcagc ctctggagta gctgggacta 240
caggggcatg caccaccagg cctggcttcc taggagggtc tttaaagaga aaacatttgt 300
tcaattgaaa acaggattct tgtcatctac aactccaaca cagcctgaaa atatccacat 360
tataacctgg accttagacc tactttctcc actatcctgc aaagctacat ctgtaactac 420
ctattggcta tctatatgag tcctcaagca tctcagactt tacatga 467

<210> 892

<211> 407
<212> DNA
<213> Homo sapiens

<400> 892
attccagata aagggagtag ccagtgtaaa ggtcttaagt taggaacaag cttggtatat 60
taaagaataa gcaaggaagc cagtgtggtt gaggagagag caacagaaga tgaggtcgag 120
taagtaatat tggtgccttg taggctctaa ttaggaattg ggcggctgga agtggtggtt 180
caggcctgta atcccagcac ttctgggagg ccgaggtggg cggatcacga ggtcaagagt 240
tcgagaccag cctgaccaac atagtgaaac gccatctcta ctaaaaatac aaaaattaac 300
tgggcatagt ggtgcgtgcc tgtaatccca gctacttggg aggctggggc aggagaatcg 360
cttgaaccca ggaggcagat gctgcagtga gccgagaata cccactg 407

<210> 893
<211> 467
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(467)
<223> n = A,T,C or G

<400> 893
actctanaat acaagctact tgttcttttt gcaggatccc atcgattcgc tttgtgatgg 60
agtttcgctc ttgttgccta ggctggagtc caatggcatg atctcagatc acttgaaccc 120
aggaggtgga ggttgtggtg agccgagatc gtgccattgc actccagcct gggcaacaac 180
agtgaaactc cgtctcaaaa aaagaaaaaa aaaaagaaaa ngaaaggaaa ngaaaaaaag 240
atntggncct gtntgancca gngaaatttt tttgnggnta aaattnaaaa ttgcaagcca 300
ncanatacat acccaganac tgaacatttt cancaccanc gtaaagtcat gacanaaaaa 360
ancanaantt ttccacaaac tccctctgct gaggttcctg gaactgctgt tcccnaggng 420
nggtgttcaa agctactgga atttatgana ggctcagttt ttntcca 467

<210> 894
<211> 355
<212> DNA
<213> Homo sapiens

<400> 894
ggctcattga agactctgtg ggttacccag aagcccaact ttccagattc aatatttttt 60
ctatttctta gctgtgttac cttgggcaag ttaattaacc tctctgtgcc tgcatgttgc 120
atctgtaaat gagactaata ctagtaccca ccttctaaag tgattatgag cattaaatga 180
attagtacgt ttaaaggctt agaacagtgt tttatgatat gataaacact caataaaatg 240
ttagctattg atattggtgt gcccagaagg cttgttacta ctagttgatt tatgtgcttg 300
ccaaaagttg ttgtgttggt aattaagtac gacataaact aatgaaaatt gagtt 355

<210> 895
<211> 378
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(378)
<223> n = A,T,C or G

<400> 895
gcccagcagg cccagcatgc aggtggtggg acactgggca gcaaggctgc tgccggaatc 60
acttctccaa tcagtgtttg gtgtattatc attttgtgaa tttgggtagg ggggaggtgt 120
gggaggattt caatccantc tagagaanat ataanaaaan ctanccaggc ncantggctt 180
acacctgtta tcccancgct ttgggaggct aangcaggca gatcacttna naccancttg 240
ggcaacatgg caaagccccn tctctncaaa aaacacaaaa attanctggc attgtggcgc 300
acacctgtat tcccatctac tcangaagct gatatggaag aattntttna ccccnanttc 360
aaggctgnat tgattttt 378

<210> 896
<211> 386
<212> DNA
<213> Homo sapiens

<400> 896
ctttctcaag caggagctgg tattgtaggg agtggccggg tattctgggc tgggctcttc 60
tggagtaggg ggtcaagcaa acattgtctg caaagggcca gatactgaat ccagtacttt 120
cagtttggcg agccgtgagg tctctgtcga aactactcaa ctctgccgtc ctagcacaaa 180
agcagccata gacaacacac aaacgagagg gcttggctcc cttccaggaa gatttattta 240
acaggctccc agctgaattt cactcacagg acacagttta ctgatctctg ttctagtgag 300
tgggcaaaaa gcatatgcat ccttatccgt caactcatca gctcttcctc aaggcaacct 360
gaggccagac accaagaaac caagcg 386

<210> 897
<211> 390
<212> DNA
<213> Homo sapiens

<400> 897
gagagaggcg ggactgggtc aagtgggtgg agctcctcct tgcatgactg caactgtcgg 60
ggctttccgc cggctcacag cagttggggc cagcggggag aagagaggcg gaactgctgt 120
gtcctcatgt ggcgcagcct caaactggca tccaggcact gggcccgtgc agagaaggca 180
cctgcagaga gcagggcagc ccggcgcagg ggcatgcgcc tagaatccca gctactcgga 240
aggccaaggc aggaggaccg cttgagtcca gggattcaag gccaacctgg gcaatagagc 300
gagaccctgt ctcttaaaaa acgatgatga tgaacacaga ggacggggca ctgtgctggg 360
agccaggggg cctgggagga gcccagacca 390

<210> 898
<211> 407
<212> DNA
<213> Homo sapiens

<400> 898
ggccagggcc acaggggcac gtggcgccgg gaggagagag aatgtctttt cgaggcggag 60
gtcgtggagg ctttaatcga agtggtggag gtggcggctt caaccgaagc ggcagcatca 120
accacttccg atgtggaggc ggcggtggag gcggcggcaa tttcacaggc ggcggcaagg 180
gaggatttgg acgaaggggt ggccgcggag gctttaacaa aggccaagac caaggacctc 240
cagaacgtgt agtcttatta ggagagttcc tgcatccctg tgaagatgac atagtttgta 300
aatgtaccca tatgaaaata aggtgcctta tttcaatgct cctgtttact tagaaaacaa 360
agaacaaatt ggaaaagtgg atgaaatatt tggacaactc agagatt 407

<210> 899
<211> 344
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(344)
<223> n = A,T,C or G

<400> 899
tggggcttca ccatcttgac caggctgggc tttaactcct gatggtgatc cacccacctc 60
ggcctcccaa agtgctggga ttacaggcat gagctaccgt gcctggcccc ctttttttta 120
attacagaga aataagttac accttagtat cagatattaa ttttcttcag tgttcaggca 180
attagtattt agaaagctct tgtcatgaga tggctctggg atgtgatgat gattgttggg 240
attgaaaaaa tggtagtatc atggagagat cataataaat tcttagtatt aaaagtggtt 300
ttgctttcag ttagggagaa aaattagatt gtactatntt tccg 344

<210> 900
<211> 395
<212> DNA
<213> Homo sapiens

<400> 900
gtgatacaat attatattgg taatggaaat ggaagtatat tgttgtagtg tactacttat 60
ggtgttcatg aagtggtata atattacttg aaggtagatt gtgtgttcaa aatgtatata 120
atgaaccata aagcaaccat taagaagaaa gcaggaggga atgaattgtt aatatgccaa 180
ccaaggggat aaaatggaat cagttaatac aaaacaaggc ataaaatgag taaaaacaaa 240
gaacagatgg gataagtagg aaacaaagaa taatatggtc aatttcaatt caaacacatc 300
tatatttaca ttatcagcag tcacattaat gtaaaaggag taaatgtttc agttaaaaga 360
cagattatca gatttaaaaa aagaggtaac tgctg 395

<210> 901
<211> 217
<212> DNA
<213> Homo sapiens

<400> 901
gaatacaagc tcttgttctt tttgcaggat cccatcgatt cgaattccgt tgtttgacgg 60
caacggactc tgcagagctt cataactggg aatttgattt gaagaagtcc atgtcatatg 120
tgtaactagt actaattata aatataaaat acacaatata aaatatgaaa ctcaataata 180
aacagtgcca cctgtacatg ggcaaaaaaa aaaaaaa 217

<210> 902
<211> 395
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(395)
<223> n = A,T,C or G

<400> 902
gagatcgagt ccttataaga aaaggaagga actagagcga ggtcactttg tgctgtgtga 60
gcatacaaga aaactgccat cttcaagctg ggtgcagtgg ctcacgcctg taatcccagc 120
actggaaggc caaggcatta ggattgcatg agtccaggag ttcgagacca gcctaggcat 180
gataagacct tattgctaaa aaaaaaaaag ggaantaaan taaaaantng ccntntgcaa 240
angaaaaagc nttnagccga cnccaaactg ccagggcctt tgnttttgga ctttcagccc 300
ccaaatntgn gaaaaattan tttntgtngt ttaaaacncc taccctgngg nttttgttnt 360
cgcaatccaa ctgctgaaca ggccgtangg aaaaa 395

<210> 903
<211> 414
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(414)
<223> n = A,T,C or G

<400> 903
cacaagggtt tgtctacgaa tggtttagcg ccaggttccc cacgaacgtg cgctctcttc 60
agcagaacaa gagattgtgt ttgtgtggtg gtgagggatg gaatagagag ctgaagatga 120
gcaaaaggag ggaggagtca ggaaaaggca gctcctatat gttgaattta tttttcatta 180
gtactgagta tttaaagaag agggcaccca ggctggagcc ctgggaagtc ccatatgtgg 240
tggtctggtg gagtgggttg aggaggtaat agaaggtcag aaagtaaaga tagtaaatat 300
agaccattct ttcaagaagt ttggctgtgg ggctggcatg gtggccatgc cttaattcca 360
gtactttgcg aggcctaagt gggaggattg cttgacctaa gaatttgana caac 414

<210> 904
<211> 403
<212> DNA
<213> Homo sapiens

<400> 904
ggaaaactgt ggtgtgcaaa gaagaataaa aagaagagga aaaaggtttt atataatgcc 60
aataaaaatg atgattatga caacgaggag atcttaacct atgaggaaat gtcactttat 120
catcagccag caaataggaa gagacctatc atcttgattg gtccacagaa ctgtggccag 180
aatgaattgc gtcagaggct catgaacaaa gaaaaggacc gctttgcatc tgcagttcct 240
catacaaccc ggagtaggcg agaccaagaa gtagccggta gagattacca ctttgtttcg 300
cggcaagcat tcgaggcaga catagcagct ggaaagttca ttgagcatgg tgaatttgag 360
aagaatttgt atggaactag catagattct gtcggcaagt gat 403

<210> 905
<211> 416
<212> DNA
<213> Homo sapiens

<400> 905
aacaactaac aaaatgaaaa ggacccagca agcctcactt gtggaatgaa aatggggcat 60
tcaggaaagc acctgtcctg gccccacagt atgtcagctg tataggcaat agtagtagct 120
gtctcttaga agggaaataa tgtatcacct ctttccagaa cgaagcaaag ttgctggctt 180
agtagagccc tcaattcata gaggttactg taattgggcc tggctcactg atgctttcgc 240
caactgaaac tactaggatc ctgtgtgtgt tcaaactcag tgccattaac aaacccaaag 300
tgaagcggtc actcctctca gtggaaagag cacgaggatg ttctcagctc tggccaatac 360
tccatttcat aaaccatgtt acatttttgt taagccttgg ctctggatgt ggccta 416

<210> 906
<211> 413
<212> DNA
<213> Homo sapiens

<400> 906
ggcctggtcc gcagcgccct gcgcccaccc gccccggacg tggggcccaa gcccccgtga 60
agatggtgtc ctggatgatc tccagagccg tggtgctggt gtttggaatg ctttatcctg 120
catattattc atacaaagct gtgaaaacaa aaaacgtgaa ggaatatgtt cgatggatga 180

tgtactggat tgtttttgct ctctatactg tgattgaaac agtagccgat caaacagttg 240
cttggtttcc cctgtactat gagctgaaga ttgcttttgt catatggctg ctttctccct 300
ataccaaagg agcaagttta atatatagaa aattccttca tccacttctt tcttcaaagg 360
aaagggagat tgatgattat attgtacaag caaaggaacg aggctatgaa acc 413

<210> 907
<211> 400
<212> DNA
<213> Homo sapiens

<400> 907
accacttaaa aggattctta caacaaatta aaatgaggag ggagaactta tttctcctat 60
agtaactgtg cattaaaatt ttatctcgtt tttatttatt ttttaaagat agggtctcac 120
tctctcacac agggtagagg gcagtggatg atcatagctc actgtaacct caaactcctg 180
tgctcaagtg atcctcccac ctcagccacc cgagtggctg ggactatgca cataggctac 240
cacatccatt attataattg aaaaaatttt tctggccggg cccagtggcg catgcctgta 300
atcccagcac tttgggaggc cgaggcaggc agatcaccta aggtcaggag ttcgagacta 360
gcctggccaa catggcaaaa ccccatctct gctgaaaatc 400

<210> 908
<211> 496
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(496)
<223> n = A,T,C or G

<400> 908
gactatagaa acaagctact tgttcttttt gcaggatccc atcgattcga attccgttgt 60
tgacttaggc tggctctggg agcttctgga agctcccaag ctttgtagct catgccaaca 120
gagcccaggg acagaggcag agccccagag gggtgacacc ccctctgagt cccattcgct 180
ttgctgccca ggtgatagtt ggcatctatt ttggccttgt ggcactgatt agcctttctt 240
ccatggtcaa cttctatatt gtggccctcc cactggcagt tggcttaggg gtcttgctgg 300
tggctgctgt tggcaaccag acctcagact ttaagaacac tctggggtca gcatttctca 360
cttcacctat cttctatggc cgcccatagc catactgccc attagcgtgg cccncattac 420
agctcagagc atcgccgcta caaagctttg gtggcatcag agccgtcant gngcggtcta 480
tcgctggctt gnttac 496

<210> 909
<211> 388
<212> DNA
<213> Homo sapiens

<400> 909
ggtacgagta agttccctga actcgaagct ctctgcacag gaaaggaagg agctgcttgc 60
tgacctggag cgagaaaagc cccagaccaa gattctgtac atcaccccag agatggcagc 120
ttcatcctcc ttccagccca ccctgaactc cctggtgtcc cgccacctgc tgtcttactt 180
ggtggtggat gaagctcatt gtgtttccca atgggggcat gactttcgtc ctgactactt 240
gcgtctgggt gccctgcgct cccgcctggg acatgcccct tgtgtggctc tgaccgccac 300
agccacccca caggtccaag aggacgtgtt tgctgcctgc acctgaagaa accaagtgca 360
tcttcaagac tcctgctttc gggcaact 388

<210> 910
<211> 387

<212> DNA
<213> Homo sapiens

<400> 910
ggggagaggt ggtgaaggtt ttgcccactg caggggtcaa catgtgcttc cctccaggag 60
tctgccgtgc acccgaggga gattttcaag cagaaggaga gggccatgtc caccacctcc 120
atctccagtc ctcagcctgg tgagctctcc ctttgggcct ggccatgagg cagcagcagg 180
ctgaggggga gcctggggtc ctatgtgggc tcccccaagg ctagtgacag atatatcggt 240
gacgggtgag tgagtgagga gaagggacac ctggggccat tgacctcatc agtgaccaca 300
ctggtcacca gtttggcctc caaaagatat tgggctgcgc tgtctaccac gtcaccacat 360
agcacatggc cctggggcct ctgttcc 387

<210> 911
<211> 368
<212> DNA
<213> Homo sapiens

<400> 911
atttggagaa agttttagag agtggggctc aggctcaaga atacaatgaa gtaataaagt 60
tgttaacctc atgtataaaa tcctccatcc agatgttgct tagtgatgca gctagtgctt 120
ctggaggaaa agaagcaaga accaaataat gaagactaca tcaatgggaa caagtgatac 180
ttttaggtgt tttgttctca gaatatttta aaagaaagga aattaacaac agaagaaaaa 240
tatttcccta tatgaattaa tggtttttat aagaaaaata tctttctgga gatactaaga 300
ttgacctaga aattgatcca aggaccagat gcttaaagtt cacttcaatt ggtcactaga 360
aagatcca 368

<210> 912
<211> 385
<212> DNA
<213> Homo sapiens

<400> 912
gaataactag acagaatatt tgtaaggaaa tagagggctt gaacaacata ataaattaac 60
tcgatctgtc agacatatac agaacactct acccaacaac agcagatgat acattcttct 120
cttctcaagt gtacatggaa catcctccag ataaactacg tgtttggcca caaaacaagt 180
cttaataaat tttcaaagat tgacatcatt acaaaatttc tgatcacaat gaagtgaaac 240
ctcaaaccaa ggaaggataa ctataaaatc cacaaatatg tgaaaattta aaaactcact 300
ctacagcaac cattgggtca aagaagaaat cccaaggaaa attggcaaat accttgaaac 360
aaaaaaatac atcataccaa aattt 385

<210> 913
<211> 485
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(485)
<223> n = A,T,C or G

<400> 913
tttgaantcn ataatacaag ttncttgtcc tttttgcagg atcccatcga ttcgaattcg 60
gcacgaggct ggaggcattc gaaagggact cccgatgtgg tgggcggggc tgaaccctgt 120
ggcttctgag gtccctgcca gccagagact tgtgtgagtc tttgaatggc ttcacatgaa 180
caaaagagca tttctgtcac ctttcctcta gttttttcca ccacacccac cagggagctg 240
aggcaaggtt gtttctgttg ctgtttcctt aggtcagctg aggctgtcca ttgatgccca 300

ggaccgggtt ctgctgcttc acagtgagta cggctttgtg caggctcacc aaggaagggg 360
cgggccactc agcagagcag ggccacagaa gagttttcct atcttccctc ccttctttat 420
tccatccttt cttcttttct ctatttttct cactcattca tttattcatt ggttgacagg 480
cagca 485

<210> 914
<211> 405
<212> DNA
<213> Homo sapiens

<400> 914
aaaaaattca tactggagag aaaccctatg agaaccctaa ccctaacgct tcagttgtcc 60
cagttctttc atgagcatga aaggagtcac atagagaaac cccatgaaag taagaaattt 120
gggaaagcct tcagtccttt ctgtttcttt caactacgtg aaaggattca cagtggagaa 180
agaccctgta agataattgg ctttaaatta cgagagactt gtgataggac agtaaaacct 240
agagttggag ttggatctct ggattgtgtt atgtcagtgt tggtaggtta ggaactagat 300
ttcccagaat ccattccatt tgtgattcca tgatacaatt caccagtaac ctatcttaca 360
tgagattcgg aagtaagtta aagaaggcat tagtcatggg ttgga 405

<210> 915
<211> 466
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(466)
<223> n = A,T,C or G

<400> 915
tttgnnnccc tttaatacaa gctacttgtt ctttttgcag gatcccatcg attcgaattc 60
ggcacgagat atagtccaga tgaggaaaat aaggctgaag gcaagctaaa cttgcctgaa 120
gccacattgc taggaagtga cagaaccttg taaacaagat ttaagatttg atatactttc 180
ttattttcta aaaatttcaa tgtgcatgta gttctcagat gctttcctcg aagaaaaggg 240
agtgtcatct atttatctga ccttgcaatt atgacatttc ttagaagttt tttttttaa 300
ctgaccgtat cttatgaaat ggtcttgcga tggtgttgtt gaaatgactt ttttgctgca 360
gtgtgccttg ccctgataat tccttcttcc tactatgctt cagggtaatt atttctctta 420
ctcccactga tactggggga aggagaggaa actccctgat gtgcct 466

<210> 916
<211> 418
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(418)
<223> n = A,T,C or G

<400> 916
cccatctgct tgtcgtttta aacctagaaa atagtggcta ttggctgggc atgatagctc 60
acgcctgtaa tcccagcact tcggggggct gaggcaggtc tgtacaaaaa attcaaaaaa 120
attagctcag tgtggtggca cacacctgta gtcccagata ctcgggaggc tgaagtggga 180
caatcacctg agcctggcag tcaaggctac agtgaggcag gattgaacct ctgctctcca 240
gcttgggtga cagagtaaga ctctgtctca gaaaaaaaaa aacaaaaaac aggggctatt 300
aatcttcccc tcagttcctc ccatcctcct cccctccccg gggctanaaa gccgaagctg 360

anattcaatc ccanaggcca gctggatttg ggagacctca aatgccaggt caggcata 418

<210> 917
<211> 390
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(390)
<223> n = A,T,C or G

<400> 917
gcagggacta ctgggacaaa aatcagatga gcagcaagca gcccacaagc caaaccctgc 60
acacctgggc agagttctca ccgcaacata aagcagagtc cgaggagccg ggcacctggt 120
ttcagtgagt gagctctgtt tcggttgacc caggtcatgg aatggaaacg gtgaggccca 180
tttgcgtnat ttcncaaaac gacatanact ggnanatgcc catttgcant cattccatag 240
ngaaatgtgt gacaaanatg ctctggagga agattcanaa agcgttnntg aaatangaag 300
tgatgaggaa tctnaaaatg aaattacnng tgttggnana ncttnngtga tgactntnna 360
anngnanatn atnanangnn gatannataa 390

<210> 918
<211> 395
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(395)
<223> n = A,T,C or G

<400> 918
gatgagagcg gcagagacta tagggagagg gaacgggaat atgaacgaga tcaggagcgc 60
atacttcgag aaagagagag gctgaagcgg caagaagaag agcgccgtag gcagaaggag 120
cgctatgaga aagagaagac ttttaagaga aaagaagaag aaatgaaaaa agagaaagac 180
acacttcggg ataaaggaaa gaaggctgaa agtacagaat caataggcag ctcataaaaa 240
actgaaaaga aagaagaagt ggtcaagaga gatcgaataa gaaacaagga tcgtccagcg 300
atgcagcttt accaaccagg agctcgaagc cgaaatcgac tctgtccccc tgatgacagc 360
accaagtctg gagattcanc agcagaaagg aagca 395

<210> 919
<211> 389
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(389)
<223> n = A,T,C or G

<400> 919
gcaagaccca ccaggtgcca gctgcccctg ccccttgccc atgccctgtg tgtgggcggc 60
ccctggccaa ccagggctcc ctgcggaacc atatgaggct ccatacagga gaaaagcctt 120
tcctgtgccc gcactgtggc cgggcgtttc gtcagcgggg caacctgcgt gggcatttgc 180
ggctccacac cggggagcgt ccttaccgct gcccacactg tgcngatgcc ttcccccagc 240
tgcctgaact gcggcgccat ctcatctcac acaccgggga ggcccacttg tgcccgtgtg 300

tggcaaggcc ctccgagacc cacacacgct ccgagctcac gagcgcctgc actccggaaa 360
gaggcccttt cctgtcccca atgtggccg 389

<210> 920
<211> 411
<212> DNA
<213> Homo sapiens

<400> 920
aggaattatt tacacagccc tgttgcagag ttaaggagca aacaagatgg caaggcatcc 60
aattctagaa atgataagac agaaccatcc ctagggatga tgagacaagg agcaggagtt 120
tccttaagag cccagtgtaa gcagaggcac aggagggcag gatggaggga cgtacagcct 180
gaaaggacac tgccatggtc caggcaaagg gtcaaagcag gaacagatga agatgtatct 240
cctttaaaaa caaacaaaca aaaaaagaca gtttccctct gtcacccaag ctggagtgca 300
atggtacaat cttggctcac tgcaacctcc acctcccaag ttcaagcgat tctcctgcct 360
caacctcctg aatagctagg attacaggcg tgcccagcta atttttctat t 411

<210> 921
<211> 396
<212> DNA
<213> Homo sapiens

<400> 921
ggcttggtgg ctcatgcctg taatctcaac actttgggag gccaaggtga gaagaacact 60
tgaggcctgg agttaccagc ctgggcaaca tagcaagacc ccatctctat gaaaaaaaaa 120
taaataaata gaaaagaaag aaatgcagaa tcccagtccc caccccagac ctcctgagtc 180
agtctgcatt agaataagct cctcaggcaa ttctcacatg tgttgcagtt tgagaatcct 240
ggaagcccac catgcctcgt gcctaattag cagtcagtgt ttgcatcatg aacggacggc 300
ctttctctct atttccattt tgtgttacag gcctggtggg taggagatga agtttttgca 360
gatgtctgga gaatatgtac caacaacacg aattgc 396

<210> 922
<211> 414
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(414)
<223> n = A,T,C or G

<400> 922
gtttttgaac attttcttga aaatctggat aaatcccgaa aaggagaact tcttaagaag 60
agtggtaaga cgctatgcct ttcccttcta tctagttaga tcttattatt agtagaaatg 120
agcaattttt gagttctagt ctttctttgc cctcctccca aaatttacag atttatctta 180
ctatccttaa tgttttggaa attgaggttc cttaattcaa tttaacacat agttattaaa 240
cacattctaa gtatcaggtc tataagggag acaaagatga attaacatca tgcctccttg 300
cccttaagaa gtactaactt ggccaggcac ggtggctcac gcctgtaatc ccagcacttt 360
gggagaccaa ggcagttgga tcacttgagg tcaggagttc gagaccanct ggcc 414

<210> 923
<211> 398
<212> DNA
<213> Homo sapiens

<220>

<221> misc_feature
<222> (1)...(398)
<223> n = A,T,C or G

<400> 923
cctgtatggt cccattgtga aacatatttc atttttgat ttcttcaagc ataagtatca 60
aataaatatc gatggcactg tagcagctta tcgcctgcca tatttgctag ttggtgacag 120
tgttgtgctg aagcaggatt ccatctacta tgaacatttt tacaatgagc tgcagccctg 180
gaaacactac attccagtta agagcaacct gagcgatctg ctagaaaaac ttaaatgggc 240
gaaagatcac gatgaagagg ccaaaaagat agcaaaagca ggacaagaat ttgcaagaaa 300
taatctcatg ggcgatgaca tattctgtta ttatttcaaa cttttccagg aatatgccaa 360
tttacaagtg agtgagcccc caatccgaga nggcatga 398

<210> 924
<211> 389
<212> DNA
<213> Homo sapiens

<400> 924
gcaggctctt atactatctt gcacaggctg gtctcgaact cctgggctca agcagtcatc 60
ctgcctcagc cttccaaagc tcagggatta cagacatgag ccacagcacc aggccaacaa 120
tatttcttaa agctcctgga gtgattccaa tatgcagcca aggttgaaaa ctaccettta 180
aaaggctcgg catccagtgt ggaagaccag cactcacaca tccggagacc ttacccggag 240
ccaggctgcc cctgatcatc tctgataact ttaaaaggaa ggcctcagaa gcagccccag 300
aagcaaaagt ttctctctga ccttctcctg cctcttgtct ctggcttttc attctccccc 360
aaggctaccc atagaaacta gaatccctc 389

<210> 925
<211> 409
<212> DNA
<213> Homo sapiens

<400> 925
gcagaagtta gaccaccatt tacatatgca tctttaatta ggcaggccat tctcgaatct 60
ccagaaaagc agctaacact aaatgagatc tataactggt tcacacgaat gtttgcttac 120
ttccgacgca acgcggccac gtggaagaat gcagtgcgtc ataatcttag tcttcacaag 180
tgttttgtgc gagtagaaaa cgttaaaggg gcagtatgga cagtggatga agtagaattc 240
caaaaacgaa ggccacaaaa gatcagtggt aacccttccc ttattaaaaa catgcagagc 300
agccacgcct actgcacacc tctcaatgca gctttacagg cttcaatggc tgagaatagt 360
atacctctat cactaccgct tccatgggaa atcccctctg ggcaactta 409

<210> 926
<211> 381
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(381)
<223> n = A,T,C or G

<400> 926
cttgacagct catgttggtg tagtcttgtt tagattgaat cttttgacct tctggtacct 60
gaagatttat gtttttcatc agatttgcaa agttttatgc tattatctct ttaaataatc 120
tttctatccc tttgtctttc tcttctcctc tatgaatttc tgcaactcaa acatttgctc 180
ttttcacagt ctcataaatc ctgtaagtgt tccttattac ttttcattct tttttctttt 240

tccttctcta gctgtatttt cagacaacct gtctgagttc aaattctttc ctctacatga 300
ttaattctga tattgatgct ctttgntgca ttttttcatt ttattcattg natttttcag 360
ctccagaatt tctgnttctt t 381

<210> 927
<211> 167
<212> DNA
<213> Homo sapiens

<400> 927
gaagaattcg cggccgccta ccgtacaacc ctaacataac cattcttaat ttaactattt 60
atattatcct aactactacc gcattcctcc ccacactcat cgcccttacc acgctactcc 120
tacctatctc ccccttttata ctaataatct tataaaaaaa aaaaaaa 167

<210> 928
<211> 381
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(381)
<223> n = A,T,C or G

<400> 928
ggagaacagg agggcatgtc cctttgggag cccgccttgt ggatccacca caccccaccg 60
agcactagaa gctgcataag ctacacagga tgtgcttctg cagcctacag atgcagaacc 120
agaatgaggg ggacaattcc acccactcga gggctgcccc ctcttcctta gcagacgaac 180
cagtaatggg ggcaaggctg gggcatccca gcccacacac cctggatgcc cagcaaggcc 240
acagaaagag cctgatgtcc atgatccagg tggctctgag aagcttggcc tggacacctg 300
agcctgcggc cggtactcct gcttctcccc atctatcccc aaggcctctg ctctcacctc 360
ttccatggnc gggttaagct g 381

<210> 929
<211> 419
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(419)
<223> n = A,T,C or G

<400> 929
gcgcgagaat ctgcaaagtc aagccacttg ggcacccag tggggcacag tgtggtggct 60
cctgggcaag gcgggaaggt ggtcagtgag cagtatggaa acagaggaag gtcccaagtg 120
ataggacggc ctgacttggc acttgagtca gatttgtctg tgttccaatc agcattgcca 180
cttcctgggt tttacacctt gaaacatttt tttcacttaa ttcaacctta gtttttttatt 240
aactgtcaat tgcattttaa cagtagagtt tcaaaggtaa gaaaatgttt aagaggtgga 300
tttcagaaaa gacattacat atatagtcaa atattcactt gttaaaaatt ctgatttacc 360
tttttcttca ctagagtata gtaagtttgc agcctgttcc tttttaaggg ngattttaa 419

<210> 930
<211> 410
<212> DNA
<213> Homo sapiens

<400> 930
gttctttaaa gaaagagggg gaagaaaaaa agcccaagtg aataaaacat tgaaactatt 60
ccccttcgaa aataaattct aaaatcgaca gcaacggaat tccgttgctg tcggggaaca 120
ggaaaagaaa ccccaaactc aggccgaatg atcaagggga cccataggaa atcttgtcca 180
gagacaagac ttcgggaagg tgtctggaca ttcagaacac caagacttga aggtgccttg 240
ctcaatggaa gaggccagga cagagctgac aaaattttgc tccccagtga aggccacagc 300
aaccttctgc ccatcctgtc tgttcatgga gagggtccct gcctcacctc tgccattttg 360
ggttaggaga agtcaagttg ggagcctgaa atagtggttc ttggaaaaat 410

<210> 931
<211> 489
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(489)
<223> n = A,T,C or G

<400> 931
ttgaancccct tnnnnntttg aaacccttta atacaagcta cttgttcttt ttgcaggatc 60
ccatcgattc gaattcggca cgaggaacta tctagtagct ggttccctcc gaagtttccc 120
tcaggatagc tgggacagca gctgctgctg tggaaaggcc agctggcaag atgatggaag 180
aaatctccat tatggtagcc tatgacgccc atgttttcag ccagctgcac gatgaagact 240
tcctcactag tctggtggcc atcagcaagc ccaggtctat ggtaccaacc aagaagctga 300
agaaatatga gaaagaatat cagacaatgc gagagagtca gctgcaacag gaagacccaa 360
tggatagata caagtttgta tatttgtagg taactccagc tgttgcattt atactgggaa 420
tcttcataag aagctgagag aaagagaggg gaaaaagaaa gtggctttct actttcaaaa 480
atgaaacaa 489

<210> 932
<211> 416
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(416)
<223> n = A,T,C or G

<400> 932
tgctatttta ggtatatcaa gcacaagaac ccattataga gagtgggttt tttcattgta 60
tttctgagac tcctctctta gaatcatctc tacccgcata tcgtgttttc ttttcttcct 120
acaattttag tacagaggaa aatcccaaga gagaagatta ttttggaatc acaaatcttg 180
ttgaacatcc agcccagctc aatcctccag gtaatgtata gattcctgaa tcaagtctct 240
agagcagcat tacccattgg aaatttatac agtgaggaac atgttctgta tctatgctgt 300
tcaatacaat agccactacc catgtgtaat tctttttttt aattcagttt ttttcctgac 360
aatagtttgt tgtttgacca gtgaacatac attttaagtg catattcctg ngctta 416

<210> 933
<211> 354
<212> DNA
<213> Homo sapiens

<400> 933
ctgaggatgg accaggagtc aggcgccagg aagaacaaaa acacgatgac tatgtgtatg 60

acatttacta cttggagacg gccactccag gctggattga gaacatcctc tccgtgcagc 120
cctacagcca agaatgggag ctggtgaatg atgatcaaga accagaggac atttacgacg 180
atgaagatga cgagaacagt gagaataact ggcgcaatga gtacccagag gaggagagca 240
gtgatggaga tgaggattcc agaggctctg ctgactacaa cagcctgagt gaggaggaaa 300
gaggcagcag cagacagcgg atgtggagca agtccctctg gatgtgcaga agga 354

<210> 934
<211> 347
<212> DNA
<213> Homo sapiens

<400> 934
ctaccccagt gccggggagg gttctgctgc ttcgaaagct gctctaccct tctccaaaag 60
aagagccaag agaaggtcct tttctacaaa tatcagagcc atggctcagg agtcagtgat 120
gttcagtgat gtgtccgtag acttctctca ggaggagtgg gaatgcctga atgatgatca 180
gagagattta tacagagatg tgatgttgga gaattacagc aacctggttt caatgggtaa 240
ggacatctgt ccatagtaat ttagattctg cccttggaag gcctacttcc tccaatgtga 300
aatgctcacc tggctttcaa aaaccagtcg aattttgata tcctgtt 347

<210> 935
<211> 402
<212> DNA
<213> Homo sapiens

<400> 935
gttaaaggaa agtttccttg ttggttccta ccatatgaaa gatgctatat tctattttag 60
cagtgccaat atatggaaaa tatctaaatt aaatgttatt acaaaaatga agcagtaatg 120
agattctggc taaagagggc actaaatgag aataatatat atttaaaagg gttgctgccg 180
ccccatctgc tattgcccgg cgaggtcgcc gctgcctcag ctgccatcgc cgctacaggc 240
accagtgccg ctgcgcggga gctagggctg tcgaggccaa cccttccgcg cccgtgacgc 300
ggggcctgag agacggagtg tagggagggg ccgagcagga ggaggaggaa gccggagctg 360
catgaaggag ggtctggggg cgagcaaaca ggcggcgctt aa 402

<210> 936
<211> 411
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(411)
<223> n = A,T,C or G

<400> 936
gcagagaaga aatacaagcc actcaacaca acacctaatg ccaccaaaga gatcaaagtg 60
aagatcatcc cgccacagcc tatggagggg gatgggttta aggttgtact tgtcagaaac 120
caccactgtg ctgggggagt ggcatatcct ggagcagcta cgttgctctg acgtttgagg 180
gggatgggtt taaggttgta cttgtcagaa accaccactg tgctggcatt cttcttcaca 240
ggcaccaagg atggtgtctc cagctctagt ccagtggaac ggaacttggc atgactgggt 300
gctgtggtgc gaagagactt gggcttctcc ctcttcttct ctggggcctc ctcagcccgg 360
gtctcagcct tcacctctgt caaaggtcgc tcaagaaggg tagttcnact t 411

<210> 937
<211> 398
<212> DNA
<213> Homo sapiens

<400> 937
acctgcttct gggtcggggt ttcgtacgta gcagagcagc tccctcgctg cgatctattg 60
aaagtcagcc ctcgacacaa gggtttgtcc aagcccgtgc tctatggcct cttcctctac 120
atcgcgctca cctccctcga tggcaaccag ctcgtccagc gcgtggccct gctgctcaag 180
gagcagactg cgtacccccc gacacactac atccggaggg tgccccagag gaagatccac 240
tacttcacgg gcctgcaggt gcttcagctg ctgctgctgt gtgccttcgg catgagctcc 300
ctgccctaca tgaagatgat ctttcccctc atcatgatcg ccatgatccc catccgctat 360
atcctgctgc ccgaatcatt gaagccaagt acttggat 398

<210> 938
<211> 375
<212> DNA
<213> Homo sapiens

<400> 938
acctgcttct gggtcggggt ttcgtacgta gcagagcagc tccctcgctg cgatctattg 60
aaagtcagcc ctcgacacaa gggtttgtcc aagcccgtgc tctatggcct cttcctctac 120
atcgcgctca cctccctcga tggcaaccag ctcgtccagc gcgtggccct gctgctcaag 180
gagcagactg cgtacccccc gacacactac atccggaggg tgccccagag gaagatccac 240
tacttcacgg gcctgcaggt gcttcagctg ctgctgctgt gtgccttcgg catgagctcc 300
ctgccctaca tgaagatgat ctttcccctc atcatgatcg ccatgatccc catccgctat 360
atcctgctgc cccga 375

<210> 939
<211> 363
<212> DNA
<213> Homo sapiens

<400> 939
ggcccctgca gcagcagcag cggcgtggtc agagcgagct tcggagaagc agtggtgggt 60
tccatgtgat ggtggagtag gaggcaggtc tccgcggcta gtcaccctgc tgtggaatag 120
aaggccagaa ttgatcagtc tcatctgaga gtaactttgt acccatcact gattccttct 180
gagactgcct ccacttcccc agcagcctct ggtttcttca tgtggctgca gatggcagga 240
tttcccaaag gtttctggct gaaacatatt ccgtggtgta tctgtacagc agtttcctta 300
tccctgcagc tgtgtttgaa caggaaagaa aaaagaagaa aaaaaacctc catacgagag 360
tgg 363

<210> 940
<211> 379
<212> DNA
<213> Homo sapiens

<400> 940
cccgagtcaa ggccggcttt gagtccaggc actgcacagg gtgaggagga gacgattctc 60
tatgacttgt tggccaacac cgagtggcca ccggagactg aagtacagcc tagaggcaac 120
caaaaacatg gtgcatcctt tatcatcacg aaagcaattc gagatcgttc attattttta 180
cgccaataca tctggtacag cccggcacct tttttgctcc ctgatggact ggttcgcttg 240
gttaataaac agataaactg gcatttggta cttgcaagca atggaaagct tttggctgct 300
gtcaagatca gtgtgtggaa atcaagtctg caaaagatga ttttacatcc attattggga 360
aatgtcaaag ttccaaaga 379

<210> 941
<211> 361
<212> DNA
<213> Homo sapiens

<400> 941
gcgtaacttt ttactgcatc taatgagggt gttttaagtg acactcagtg tacacagatc 60
ccatcctctg gctgctagga gagaagtgct gaatgttccg tgtggagatg ctcaggaaag 120
ttatttgagt taaattgctg gctgagagag cttggaagtc cttttcataa aaggtacctc 180
tttccttttc ttattgaatt cttagaactt agttaaccct ccctgccttt tcttaacaaa 240
aaggactttt ctaaggactg aagattggca aaaacgaaaa gcttcttcct ccaagagccc 300
attgaagaag cccagtgatg agacggtgag atgggttgag cctcggtgcc tgggtagcaa 360
g 361

<210> 942
<211> 375
<212> DNA
<213> Homo sapiens

<400> 942
gccgtcgccg ccatttcaag accgtactag gtagatggtc aattagagtt cccagggttt 60
gaagcctgta actgctgccg ccgctcaagc cctccagagc attgctacgg ctgctgccct 120
tgtactacta cctccaaata cgttcttgct ggtagtggcg gcagcaggac caattacctc 180
tttttgctc tccctcgaga agctccagat ggcgtcttcc gtgggcaacg tggccgacag 240
cacagaacca acgaaacgta tgctttcctt ccaagggtta gctgagttgg cacatcgaga 300
atatcaggca ggagattttg aggcagctga gagacactgc atgcagctct ggagacaaga 360
gccagacaat actgg 375

<210> 943
<211> 345
<212> DNA
<213> Homo sapiens

<400> 943
tagggccgga ccctgcctgc cccttggctt ctcagggctt tgctctgaca ccatgacagc 60
tgcccggggc tgagggcagc tggctccact caaatgagga agaagggatc actcccatta 120
gggcctgctt tgcttatgca tgtgtgtgca catgcatgta aaccagggac cttcagctca 180
cggcctccag gcctgggcca gttcttgctg ctcctgccgt ctcccccgac tggctgtgtc 240
ctgagtaact ggaacatgag actgtatctg caggactggc cccatggtgg ccgagtcaga 300
agtctgtttc ctgtgagtcg ccaccgttca ctcagtcttg cctcc 345

<210> 944
<211> 383
<212> DNA
<213> Homo sapiens

<400> 944
gatgttgtaa agtgcatcct ggtggccagc ccaggatttg tgagggagca gttctgcgac 60
tacatgtttc aacaagcagt gaagaccgac aacaaactgc tcctggaaaa ccggtccaaa 120
tttcttcagg tacatgcctc ctccggacac aagtactccc tgaaagaggc cctttgtgac 180
cctactgtgg ctagccgcct ttcagacact aaagctgctg ggaagtcaa agccttggat 240
gacttctata aaatgttaca gcatgaaccg gatcgagctt tctatggact caagcaggtg 300
gagaaggcca atgaagccat ggcaattgac acattgctca tcaacgatga gctcttcagg 360
catcaggatg tagccacacg gag 383

<210> 945
<211> 424
<212> DNA
<213> Homo sapiens

<400> 945

agctaatgac cggtattgtg tactgagatc agacttcagg gatgaagcag ctgtatgttc 60
tcatgtcctg gacactacca cgttgatggc tttctaaatc cagggagcag gaaaattcag 120
attcgaaaca tccctcctca cctgcagtgg gaggtgttgg atggactttt ggctcaatat 180
gggacagtgg agaatgtgga acaagtcaac acagacacag aaaccgccgt tgtcaacgtc 240
acatatgcaa caagagaaga agcaaaaata gccatggaga agctaagcgg gcatcagttt 300
gagaactact ccttcaagat ttcctacatc ccggatgaag aggtgagctc cccttcgccc 360
cctcagcgag cccagcgtgg ggaccactct tccgggagca aggccacgcc cctgggggca 420
cttt 424

<210> 946
<211> 336
<212> DNA
<213> Homo sapiens

<400> 946
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tgcgttttaa agggggaagg aggaaaggaa agagggggag gtgtcggagt tttctcctgg 120
ttgctgagga gaccccaggc tcccggccag cctgtgacac agggcgacag cgattgagca 180
gaaagctgct gtggaaaccg agtggggact ttactgatag tgacagtgat gacttcggag 240
aggctgacgg ccggtacttc aggctcagcc agcagtcaca ctgcccagat ttctttcttt 300
tcctctgccg cctgctcagc ccgctgctca aggcct 336

<210> 947
<211> 388
<212> DNA
<213> Homo sapiens

<400> 947
ccaaggcaca gacaggagag gtggcagctt tcaaaggttg gcccccgctc tcctggctag 60
tgattgatgg gaagcatcta gccaagcccc caaaggactg gcaccctctg gcccaggaca 120
cagggactgg gactgcctac attgagtata aaaccagcaa agaaggcagt acggtggggg 180
tcacagtgtc ccacgcatcc ctgctggcac agtgccgggc tctgacccag gcgtgcgggt 240
actcagaagc tgaaacatta acaaacgtgc tggatttcaa aagggatgct ggtctgtggc 300
atggcgtgtt aacaagcgtc atgaacagga tgcacgtggt cagcgtcccc tacgcgctga 360
tgaaggcgaa cccactctcc tggatcca 388

<210> 948
<211> 380
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(380)
<223> n = A,T,C or G

<400> 948
attattttaa atggaattgt tcccttaatt ttcttttcat attgtttatt gctagtatat 60
agaagtagaa cttttatttc tgatcttgta acctgcaatt ttgttgaatt tgtctattac 120
ctctaatata ttcttttgta gctcctttag ggttttctat gataggatca tgtcacctgc 180
aaatagagat agttttactt cttcttttcc aatttatatg ccttttattt atcattcttg 240
cctaattact cagactagag cttccagtaa agtgttgaat agcagtggta gaagtgggca 300
ccttgtctgt tcctggcata gggggaagct tttagctttc accgctgaat ataatgntag 360
ctgngggatt ttcattaatg 380

<210> 949

<211> 386
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(386)
<223> n = A,T,C or G

<400> 949
atcggctccc gcagccccgc gtgggctcgt gcgagtcggc ctctgtgtct gcgagattaa 60
tctctcatgg ccgctgcaca agaacctggc ttttagctga actaaggaga aagtcctaca 120
acagtttggc gtgcaacatg gggcttgaga aagggtgagt gagatgcaaa ccaagaaatt 180
tttttcctct ctttctaagc ctatttatct tcggacttct gagggggagg ggngnggaag 240
cnnnnacccc caccccccttg gtctccatgg ccttttcctt acttctggac ggatgggcga 300
acggcggntc tctgtcgccc aggctggant gcagnggcgc catctcggnt cactggaagc 360
tccacctccc gggtcacacc attctc 386

<210> 950
<211> 405
<212> DNA
<213> Homo sapiens

<400> 950
attgctccta gtggaaatac agggttaggt cctatgagcc tttggtcata acattttcat 60
caatggatca atacataacc ttattttatg tgtgtttctg tttaaagata cattatttaa 120
tatatattgt tgattcatta acactgaact cacagtttgt aagtcatacc tgaatgttgt 180
ttatcttaca catattttct ccgtaaggca catcacagcc ttcctgtgct taggaatgct 240
agatcacccct tcagtctggt tcagtgttag ctgggaacat atgtgagagg agaggttcaa 300
atttttggct ggtctgcaca tgtctgcaaa tgacctcaaa agtgctgtat taacttagag 360
gttacaaatc aattttgagt agataaattc tcaaatatga aatcc 405

<210> 951
<211> 381
<212> DNA
<213> Homo sapiens

<400> 951
ctccctatgc agtctggttt ctagcgtgac acgcccttga cttgaggacc atgaaccgca 60
gccgccaggt gacgtgcgtg gcctgggtcc gctgcggcgt ggccaaagag acaccagaca 120
aggtgaggcc tggtcgctgg gagacaaggg gagcagcgtc tttacggcac tgggggtccg 180
cccagctggg ggaacgtgga cccggaactc ggggcgttgg ctggtgcgac tggctggggt 240
gagggcggct ttgcccggat tgtcgcgact agagctgcag ttcagaaggt ctggttcgcc 300
tgagcctgga gagtcaaggg ccgcgccttc tcactgttcc caccctcaag cccaacccca 360
ctcccaaatt cgcacgcaca t 381

<210> 952
<211> 346
<212> DNA
<213> Homo sapiens

<400> 952
gccctttagg aggatttcct tttcctcact aaaagccccc tgaaagatgc ctcagggtat 60
gcctctgtgc cctactgccc actgctgctt tcctgtttcc taggaatccc ctttatgaag 120
tacccatcct ccagaaagat ttcttaccta ccttgaaagg atcttggctt ctccacaagg 180
gtactccatc ctctgagcag gtatttccga ttctactttt gaatggtttc ttttcaaatc 240

ttcctcagtg ctttctcttt ctggctaccc ctccagccca ctaccagcct ttggtgcttc 300
tttaaattgc tgcttctttg aacacacata tccatctctt cttgtc 346

<210> 953
<211> 400
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(400)
<223> n = A,T,C or G

<400> 953
cttgactttg ggcaaataag agagcttcaa agaacagctt catccttttc tttgggagag 60
gtggagggtt gagaagcagg agcagggaga tcagaaagac catgaggttg cttctttagc 120
acatcaaagt gccacatttt gggatattcg tttctgagct cagactttcc tggacatttc 180
acatgttaac agatgagcta gtgactgtgg agaggaaaat agagttagta gctgaatggt 240
aaaagatccc attaaaccag tctctcattc ctgagaatag gccaacccaa ctaaacagta 300
gtttctcatt ttaagagatg gtattgnaga tgggctctca aaattagacc tctatccatg 360
acacaggcaa acagatcttt aataagagat atttttatgg 400

<210> 954
<211> 380
<212> DNA
<213> Homo sapiens

<400> 954
tgacacttaa gtcagagcat tctgtagctg tattttacag aactgtaatt gcacagattg 60
ttcctcttac aagagaaata tccagagctc taagaaaaca actgatgaaa acgacatgcg 120
tgacatttgg tgctgaagac ccaggtcaga gagactcctt tgggggacca gtccgctgtc 180
cttgccctca ctctgtgagg agacccacct acgacctcgg gtcctcagac caaccagctc 240
aaggaacatc tcaccaattt caaatcggga ccccactgga aaatggactg tccaactcac 300
ccggcagcca ctcccagagc ccctggaact ctggcccaag gctctctgac tgactccttt 360
ccagatcttc tcgggtcaag 380

<210> 955
<211> 396
<212> DNA
<213> Homo sapiens

<400> 955
gtccgcgcgc cgcgacgcca agaagctggt gcgctccccg agcggcctgc gcatggtgcc 60
cgaacaccgc gccttcggaa gcccgttcgg cctggaggag ccgcagtggg tcccggacaa 120
ggagtgtcgg agatgtatgc agtgtgacgc caagtttgac tttctcacca gaaagcacca 180
ctgtcgccgc tgcgggaagt gcttctgcga caggtgctgc agccagaagg tgccgctgcg 240
gcgcatgtgc tttgtggacc ccgtgcggca gtgcgcggag tgcgccctgg tgtccctcaa 300
ggaggcggag ttctacgaca agcagctcaa agtgctcctg agcggagcca ccttcctcgt 360
cacgtttgga aactcagaga aacctgaaac tatgat 396

<210> 956
<211> 363
<212> DNA
<213> Homo sapiens

<400> 956

caccatgtct gtgcccctgc tcaccgatgc tgccaccgtg tctggagctg agcgggaaac 60
ggccgcggtt attttttac atggacttgg agacacaggg cacagctggg ctgacgccct 120
ctccaccatc cggctccctc acgtcaagta catctgtccc catgcgccta ggatccctgt 180
gaccctcaac atgaagatgg tgatgccctc ctggtttgac ctgatggggc tgagtccaga 240
tgccccagag gacgaggctg gcatcaagaa ggcagcagag aacatcaagg ccttgattga 300
gcatgaaatg aagaacggga tccctgccaa tcgaatcgtc tgggaggctt ttcacagggc 360
ggg 363

<210> 957
<211> 357
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(357)
<223> n = A,T,C or G

<400> 957
tggtcagttt gtttattaaa ataagatgtc taatcctctg ttataattta agctataact 60
gttgattgtt atgttattaa taattggttt tcaattgcta aaatataaga atatttgaag 120
atgagaggag aggttaacat tttttttac agagtctcac tctgtagccc aggctggagt 180
gtagtggtgt gatctcggct cactgcaagc tccgcctcct gggttcacgc cattctccta 240
cctcagcctc ccaagtagct gggactacag gcacctgcca tcacgcctgg ctaatttttt 300
gtatttttag tagagatggg gtttcaccat gttagccagg atggnctcaa tctcctg 357

<210> 958
<211> 364
<212> DNA
<213> Homo sapiens

<400> 958
gcaggcccca acctatccat ggtttggggc tgctatctgc ctcataaagc aaagtggagg 60
gtttgtcttt tggaaaaaca aagtcgtttt ctcctctgaa aaagcctcct acatagttgg 120
ctttgccatt tgccaagaat aagagggcac agattgaggc ctcttgagta tgggttttca 180
gttgaggttg aagagagaag acagggattg taaccagaaa attcagaatg gaatgcagtt 240
ccctccagaa ctcctgagct tcatgacagt catagaagtg gattcctttt agtttcccct 300
cacccccgcaa acgtaccgta ataatgcagg atacaggtat taagttccta ctcaagctat 360
aatc 364

<210> 959
<211> 355
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(355)
<223> n = A,T,C or G

<400> 959
gcggccggcg gggtgctggg ttcccgtctg ctgcctctcg gagagtcccg ggtgactgcc 60
gcaggctcca tcgccctgtg gcctgcaggt attgcgagat ttatagggag gacgctggga 120
cccccaaaag ctgggaaatg ggactattgg cattcaggga tgtggctcta gaattctctc 180
cagaggagtg ggaatgcctg gacccagctc agcggagttt gtatagggat gtgatgttag 240
agaactacag aaacctgatc tcccttggtg aggatagctt caatatgcaa ttcctatttc 300

acagtcttgc tatgtctaaa ccagaactga tcatctgtct ggaggcaang gaaga 355

<210> 960
<211> 405
<212> DNA
<213> Homo sapiens

<400> 960
gttaaagtta gaatagtaat gttgggaggc taaattggga ggatcacctg agaccaagag 60
ttagagccca gcctgagcaa catagtgaga ccccatctct acaggaaaat ttaaaaaaat 120
tagctgtgcg tggtggtgca cacctttagt cctagctact cggaaggctg aggtaggagg 180
atcacttgag cccaggagtt tgaggttgca gtgaattact atgattgctc cactgcatga 240
cagagcatga ccctgtctct aaaaaaaaga aaagtaaaag aatagcgatg ttgaaaatga 300
ggtaatgagg tgcccttccc cccaaaaaat gagtagttgt tagcttttag ctgtcatcgt 360
ggtacagcta ccattttaag ggaagggtag ccttccctta aaact 405

<210> 961
<211> 386
<212> DNA
<213> Homo sapiens

<400> 961
gctgcatctg ctggcactgg gagccacaga agggttttga gcagggaaac gacttactgt 60
gtttttaccg gggcgggggg gatccttatg gcagcagaga ggggtgtgag ttctgagcca 120
gtcctttccc aaggagagag acccttccct caggttgagg ccagtcctag tcccagaagc 180
cccccacccc ccgatgccca ggacccctct cctgactgcc cccatctctc cgcagggatg 240
tttcatcttc tcgctcgtca agtacgtacc cctgacctac aacaaaacat acgtgtaccc 300
caactgggcc attgggctgg gctggagcct ggcctttcct ccatgctctg cgttcccttg 360
gtcatcgcat ccgcctctgc agactg 386

<210> 962
<211> 351
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(351)
<223> n = A,T,C or G

<400> 962
cttttgccta gggttgaccc gtttccgcca ctgatcagct gaatgaccct gggacaagtc 60
ccttaaactc tctggatctc attgcatctg taaagtctga gagaatgaca aagtgtcctt 120
tctagtcctg accctatgcc tcatcctgta ctttctccat aggtgcccaa cgctctggga 180
gagccccagg tgccctccca gcaggccacc tcctgctgtt tctcaccctt ggtgtccttt 240
ctctgctcct tttggtgact ggagcctttg gctttcacct ttggagaaga caggtgagcc 300
agggacatgg caaccccgcc ccccancagc tcccgtcttc atcctcagaa g 351

<210> 963
<211> 348
<212> DNA
<213> Homo sapiens

<400> 963
gccgcggggc cgggcggctg caatatggcg gaggcggaag ggaaagcct ggagtcctgg 60
ctcaataaag ccaccaatcc ttccaaccgc caggaggact gggaatacat aattggcttc 120

tgtgatcaga tcaacaagga gctggaaggg tgagtctcag cactgtgggg gcagctgaga 180
gggagcggac tgggaagggg aacaaccatg gccaaggagg gccagccagg tagccccagg 240
cttagtgcac tggagtgtgt tctgcttgtc ccccaggcca cagatcgccg tccgactgct 300
ggcccacaag atccagtccc cacaggaatg ggaggcgctc cacgccct 348

<210> 964
<211> 379
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(379)
<223> n = A,T,C or G

<400> 964
tccagctcct ctcaacagcc caacccacac cagcctcaga caccaccatg accggctcct 60
gctgcggctc caccttgtct ttcctgacct acgggggagg tgtgggagga ttttctggac 120
attacaaagc cacctgttgt ggacctgatg naaacatnan antaanangn cgctnagaat 180
gttaanagnn tantgctaaa cacatgggag ntgantccan agtacagaca ctatcctgga 240
gaagaaaana tttnntaana atactantag ccagcgnntt nntnattcga ctntcngccc 300
tgctatgcaa aangngctga tnctggnagg cttgaacncc gtatgtnaat aagggttaaa 360
tgacaatctt tnggttttt 379

<210> 965
<211> 411
<212> DNA
<213> Homo sapiens

<400> 965
ggcacttttg acttcctggg gtccttcttc agttaaaaaa aaaaattaga aaattaggcc 60
gggcgtgggg gcacatgcct gtgatccacc cacctcagcc tcccaaagtg ctgggattac 120
aggtgtgagc cactgtgccc ggccttgact accatatttt aaatttactg gaggactttt 180
ttgttctctt ctttttttctt tttttaatag catcccgctc ttatttcaga ataaaaaatt 240
tttaaggtat gttgagtaag aatctataga gcaatgaaaa tgcaagagca atagctatgg 300
gcaccaaatg gtcaatcttc ttatcataat gttgagtgga agaagccagg tccaccagac 360
acatgctgct catttattca aagtttggac acaggcaaaa caaaatagtt t 411

<210> 966
<211> 407
<212> DNA
<213> Homo sapiens

<400> 966
accaggatgg ttttttggag taccaagcaa ggggaatgga gcactttaag ggcgcctgtt 60
agtaacatga attggaaatc tgtgtcgagt acctctgatc taaacggtaa aacaagctgc 120
ctggagagca gctgtaccta acaatactgt aatgtacatt aacattacag cctctcaatt 180
tcaggcaggt gtaacagttc ctttccacca gatttaatat ttttatactt cctgcaggtt 240
cttcttaaaa agtaatctat atttttgaac tgatacttgt tttatacata aattttttt 300
agatgtgata aagctaaact tggccaaagt gtgtgcctga attattagac ctttttatta 360
gtcaacctac gaagactaaa atagaatata ttagttttca agggagt 407

<210> 967
<211> 403
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(403)
<223> n = A,T,C or G

<400> 967
gttttgttta tttctgcaag attgtgaaaa caaaactttg ggtatttgtt tcccattcag 60
gagatctggg agtgacttca tgtatttctt taacagtctt tgatcgtcac ctttcaattt 120
agactctaga gacagggaga ttgatgattt ctcagcaaag aagcttgtat ttgagttgaa 180
agttgaaaat gaaggcaagg tcttcattta aactttaaaa tttctacaca tttctttcaa 240
gtattaaatt tttcttttgc agttattcta cctatggaaa tccaggcagc caaggctatg 300
gacaagcatc acaaagctat tctggctatg ggcaaacgac tgattcctct tatggacaga 360
actacagcgg ntactccagt tatggacaaa gttattcaca gtc 403

<210> 968
<211> 281
<212> DNA
<213> Homo sapiens

<400> 968
ctgtctttag ctttgaagca gttttcatgt aatcattgcc acctcttcgc tacatgaact 60
actattgata ccagcataca agtgtatagc actttacaca caagaggttt attgatgtaa 120
aattatcggc tagggaagca gcagcgggcc aggtgtggtg gcttacccct gtaatcccag 180
cactttggga ggccaaagca ggacgatcac ttgagcccag gagttcaaca ccagcttggg 240
caacataaga agaccgtgtc tctggaattt tttttttttt t 281

<210> 969
<211> 398
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(398)
<223> n = A,T,C or G

<400> 969
gccatcacag tcctcctccg aggcctaggc cgccccccagc agcacagacc ccgccgcctc 60
ctacggccga ctctgggttc ccttcaggtg ttggtgtcgg cagggctgtc agggcacatg 120
cctggccggc tggggtcccc acccgcggag acggtcctan acccagtggg gnaggtgtgg 180
naggnttnac cnaaacannt ncncnntttc atcaanaatt anttnntann cnnctttttnc 240
tntatntnnn tcncccnnat aattantact nncacncnat tntannatna cnntncntcc 300
tnttntttat ncttnatgnt gaagcnnnnn ctntnnantc ntattnaatc gctantncta 360
ancacngnan atnnccatcn tttataaaca nnctctat 398

<210> 970
<211> 479
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(479)
<223> n = A,T,C or G

<400> 970

tttgnactcn ataatacatt ntacttcctc tttttgcagg atcccatcga ttcggttcag 60
agaggccagg ccctgtgtcc gtggctgccc agggagaaag ggcagtgtga tctcctgcct 120
ccccagcctt ctgcagatat catggccatc tccagaaggc taggatcggc accgtttccc 180
tgcaccttta aagactgttt gggccccggcg tggtggctca tgcctgtaat cccagcactt 240
ttggaggcct aggtgggcgg atcatgaggt caggagatcg agatcatcct ggctaacacg 300
gtgaaatcct gtctctacta aaaatacaaa aaattagcca ggcatggtgg cacttgcctg 360
tagtcccagc tactcgggag gctgagacgg gagaatctct tgaacccggg aggtggaggt 420
tgcggtgggt ggagatcaca ccactgcact ccagcctggg tgacacagta ggaatctgt 479

<210> 971
<211> 481
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(481)
<223> n = A,T,C or G

<400> 971
tttggnactc tanaatacan nctacttgnt ctttttgcag gatcccatcg attcgtttag 60
atgttccaga gtcctcagag tccatgaaag gactcacagt ggagaaaagc cctatgaatg 120
taaacaatgt ggtaaagcct tcaaatattc tagtaaccta tgtgagcatg aaagaactca 180
cactggagtg aaaccttatg gatgtaagga atgtggtaag tcgtttactt cttccagtgc 240
ccttcgaagc catgaaagga ctcatactgg agaaaaaccc tatgaatgta agaaatgtgg 300
taaagccttc agttgttcca gttcccttcg aaagcatgaa agagcttata tgtggtaaaa 360
aacaacaaca acaaaacacc tctgtcaatg taagaagtgt gttaaagctt tcagttattc 420
tagtttcatt agaacacgtg aaaaaattaa aaactcaaat tagagagaac ccaacacatg 480
t 481

<210> 972
<211> 421
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(421)
<223> n = A,T,C or G

<400> 972
catggctgtc cactccttgc ctgtccccac agctcttcct gcagactctt ttttcccgag 60
gatcctgtta agattgtccg ggcccaaggg cagtacatgt acgatgaaca gggggcagaa 120
tacatcgatt gcatcagcaa tgtggcgcac gttgggcact gccaccctct cgtggtccaa 180
gcagcacatg agcagaacca ggtgctcaac accaacagcc ggtacctgca tgacaacatc 240
gtggactatg cgcagaggct gtcagagacc ctgccggagc agctctgtgt gttctatttc 300
ctgaattctg ggtcagaagc caatgacctg gccctgaggc tggctcgcca ctacacggga 360
caccaggacg tggtggtatt agatcatgcg tatacgggca cctgactncc tgattgacat 420
a 421

<210> 973
<211> 397
<212> DNA
<213> Homo sapiens

<400> 973

aagaattcct attggaggtg ttaaatctac aagcaagaca tatgttataa gtcgaactga 60
accagcgatg gcaactacaa aagcaattga tgactcttcc gcgtctattt ctctggccca 120
gcttacaaag actgccaatc tggctgaagc caatgcttct gaagaagata aaattaaagc 180
aatgatgtcg caatctggcc atgaatacga cccaatcaat tacatgaaga aacctctagg 240
tccaccacct ccatcttaca cgtgtttccg ttgtggtaaa cctggacatt atattaagaa 300
ttgcccaaca aatggggata aaaactttga atctggtcct aggattaaaa agagcactgg 360
aattcccaga agtttcatga tggaagtgaa agatcct 397

<210> 974
<211> 346
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(346)
<223> n = A,T,C or G

<400> 974
gccaccatgc ctggcccatg attccacttt tatacaatat tttaagtagt aaactaggaa 60
atagaagtag aaagatgttt gcctatggta agagctgtga aacctcagtg gagccagaga 120
tcaaggaggg ttatttagaa aaaggaggtc ctcacccagg tggccaactc aaaggcacat 180
agacttggct acagacaagg aaacagtgca gagtttggcc ttactgaaga ttatgaaaca 240
gttctgcaac ctttctcaaa ctcctatcag ctacagtcca caagtgggct ttccatcaga 300
aatctgcagg gaaacagnca gcataatnct ggngcaggct gtgatc 346

<210> 975
<211> 341
<212> DNA
<213> Homo sapiens

<400> 975
atcgatgctc tcctggctcg cgtaacttca gtaggatcat ctgggggaca gctgctgacc 60
aaccttccag gaatggagca gctctcggga gctagcttgg agaaaggagc cttggacacc 120
actgatggtt acatgggggt gaatcaagcc ccagagaaac tggacaagca atgtgagatg 180
atgaaggccc gtcaccaaga attgctgtcc cagcagtaaa atttcattct ggccacccag 240
tcagctcagg ccttcttgga tcagcatggc cacaatctca cacctgagga gcaacagatg 300
ctgcaacaga agctgggaga gctaaaggaa caatactcta t 341

<210> 976
<211> 342
<212> DNA
<213> Homo sapiens

<400> 976
atcgatgctc tcctggattg ggtaacttca gtaggatcat ctggtggaca gctgctgacc 60
aaccttccag gaatggagca gctctcggga gctagcttgg agaaaggagc cttggacacc 120
actgatggtt acatgggggt gaatcaagcc ccagagaaac tggacaagca atgtgagatg 180
atgaaggccc gtcaccaaga attgctgtcc cagcagcaaa atttcattct ggccacccag 240
tcagctcagg ccttcttgga tcagcatggc cacaatctca cacctgagga gcaacagatg 300
ctgcaacaga agctgggaga gctaaaggaa caatactcta ct 342

<210> 977
<211> 479
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(479)
<223> n = A,T,C or G

<400> 977
ttttnaaccc cccttaacaa acccccnttt ttnatccccc ttaatacaag ctacttgttc 60
tttttgcagg atcccatcga ttcgaattca aggcctgtcg agcctctaga cattgcggcc 120
gctatctacg tagatccaga catgataaga tacattgatg agtttggaca aaccacaact 180
agaatgcagt gaaaaaaatg ctttatttgt gaaatttgtg atgctattgc tttatttgta 240
accattataa gctgcaataa acaagttaac aacaacaatt gcattcattt tatgtttcag 300
gttcaggggg aggtgtggga ggtttaaann ancaaccttt nccttttttt ntaaangngn 360
tccccctatg ngnttttncn atganaannn annaaccttn nggtttnttn tccaaacaag 420
ntntnccggg naannnnttt ntatnncnaa ctttntttnn attctccnaa aaaacccct 479

<210> 978
<211> 401
<212> DNA
<213> Homo sapiens

<400> 978
gcggtgtttg cattccagtt gcgcaatcct gtccacaatg gccatgccct gttgatgcag 60
gacactcgcc gcaggctcct agagaggggc tacaagcacc cggtcctcct actacaccct 120
ctgggcggct ggaccaagga tgacgatgtg cctctagact ggcggatgaa gcagcacgcg 180
gctgtgctcg aggagggggt cctggatccc aagtcaacca ttgttgccat ctttccgtct 240
cccatgttat atgctggccc cacagaggtc cagtggcact gcaggtcccg gatgattgcg 300
ggtgccaatt tctacattgt ggggaggacc ctgcaggaat gccccatcct gaaaccaaga 360
aggatctgta tgaacccact catgggggc aaggcttgag c 401

<210> 979
<211> 417
<212> DNA
<213> Homo sapiens

<400> 979
gcagaagatt ttttcattta atgtctgggg taaaattgca actttttgga acaaggcttt 60
ccttaccatt atcatcctat tgattgttct atttctagat gctgtgagag aagtaaggaa 120
atattcctca gttcatacca ttgagaagag ctccaccagc agacctgatg cctatgaaca 180
cacacagatg aaacttttta ggtctcaaag aaatctttac atttctggat tttccctatt 240
tttttggcta gttttgagac gtctggttac gcttattact caactggcaa aagaactgtc 300
aaacaaaggt gtacttaaaa ctcaagcaga aaatactaac aaggctgcca aaaaatttat 360
ggaagaaaac gaaaaactaa aaaggatttt gaaaagccat ggtaaagatg aagaatg 417

<210> 980
<211> 486
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(486)
<223> n = A,T,C or G

<400> 980
ttgaaacccc tttgnnatct tgnnaccctt taatacaagc tacttgttct ttttgcagga 60
tcccatcgat tcgaattcgg cacgagtaga ggttaatggg gttgacctga ggaactccag 120

ccacgaagaa gccatcacag ccctgaggca gaccccccag aaggtgcggc tggtggtgta 180
tagagatgaa gcacactacc gggatgagga gaacttggag attttccctg tggatctgca 240
gaagaaagct ggccggggcc tgggcctgag catcgttggg aaacgaaatg gaagcggagt 300
gtttatttct gacatcgtga aaggcggagc cgcagacctg gatgggagat tgattcaggg 360
agatcagatc ttatctgtga atggggagga catgagaaat gcctcacagg agacagtggc 420
caccatcctc aagtgtgcac agggacttgt gcagctagag attggaagac tccgagctgg 480
ttcctg 486

<210> 981
<211> 348
<212> DNA
<213> Homo sapiens

<400> 981
ggaggaagtt cgggaagtgt cgaggctgct tgctggtata ctgcatcttg ggaacataga 60
atttatcact gctggtgggg cacaggtttc cttcaaaaca gctttgggca gatctgcgga 120
gttacttggg ctggacccaa cacagctcac agatgctttg acccagagat caatgttcct 180
caggggagaa gagatcctca cgcctctcaa tgttcaacag gcagtagaca gcagggactc 240
cctggccatg gctctgtatg cgtgctgctt tgagtgggta atcaagaaga tcaacagcag 300
gatcaaaggc aatgaggact tcaagtctat tggcatcctc gacatctt 348

<210> 982
<211> 339
<212> DNA
<213> Homo sapiens

<400> 982
cggaacaaat gtggaaactg actttgtaga ggtgccatcg caaatgcttg aaaattgggt 60
gtgggacgtc gattccctcc gaagattgtc aaaacattat aaagatggaa gccctattgc 120
agacgatctg cttgaaaaac ttgttgcttc taggctggtc aacacaggtc ttctgaccct 180
gcgccagatt gttttgagca aagttgatca gtctcttcat accaacacat cgctggatgc 240
tgcaagtgaa tatgccaaat actgctcaga aatattagga gttgcagcta ctccaggcac 300
aaatatgcca gctacctttg gacatttggc agggggata 339

<210> 983
<211> 699
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(699)
<223> n = A,T,C or G

<400> 983
ganntcgtta caagctactt gttctttttg caggatccca tcgattcgaa ttcggcacga 60
gggtagctgg gactataggc acacaccacc acgcccggct aatttttttat gtttttttgta 120
gagacagggt tttgccatgt tgcccaggct ggtcttgaac tgctgggttc aagcgatctg 180
ttctgctcag cctcccaaag tcctgtgatt acaggtgtga gctaccatgc ctggcccctt 240
tttacagatt tgaggatggt tttatatcac ctcaatttct gagaacctca agctatgaac 300
ttcgtttaag gtagttccaa gtttaaggta gaaccagttc caggttccta accccactcc 360
cagatacctg gcagaatcaa agatgaatct ccggaggagg gcaccttctt cctaattttc 420
aagggtcaat gagcagtaca gtcagaaata acaaagcgta cagggaaaca aaatgtgatg 480
cgagaaacaa cagaagcaat gaatagaata aaagaaaacc agactcacaa attctttgtg 540
tattatgagt acagagacaa ataaaaacct atgcttattg ngttcataga aataaaagta 600
cccttataaa taccttcatg gaatgggtaa caattaaaaa gtggcttggc agattttaag 660

aaggttaaac aaaaaaanaa nnnnnnnnna aaaanctcn 699

<210> 984
<211> 762
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(762)
<223> n = A,T,C or G

<400> 984
nttatcagct cttgttcttt ttgcaggatc ccatcgattc gaattcggca cgaggccact 60
gccgtctccg ccgccactgg gcccccagag ccccagcccc agagcctagg aacctggggc 120
ccgctcctcc cccctccagg ccatgaggat tctgcagtta atcctgcttg ctctggcaac 180
agggcttgta gggggagaga ccaggatcat caaggggttc gagtgcaagc ctcactccca 240
gccctggcag gcagccctgt tcgagaagac gcggctactc tgtggggcga cgctcatcgc 300
ccccagatgg ctcctgacag cagcccactg cctcaagccc cgctacatag ttcacctggg 360
gcagcacaac ctccagaagg aggagggctg tgagcagacc cggacagcca ctgagtcctt 420
cccccacccc ggcttcaaca acagcctccc caacaaagac caccgcaatg acatcatgct 480
ggtgaagatg gcatcgccag tctccatcac ctgggctgtg cgacccctca ccctctcctc 540
acgctgtgtc actgctggca ccagctgcct catttccggc tggggcaaca cgttcagccc 600
ccaattacgc ctgcctnaac cttgcgatgc gccaacatac catcattgac accagaatgt 660
gagaacgcct acccggcaac atcacagaca ccatggtgtg tgccaacgtg cangaanggg 720
gcaaggattc tggcaggtga cttcggggcc cttttggttg ta 762

<210> 985
<211> 695
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(695)
<223> n = A,T,C or G

<400> 985
ttcaaataca agctcttgtt ctttttgcag gatccctcga ttcgaattcc gttgctgtcg 60
cccatctgct tgtcgtttta aacctagaaa atagtggcta ttggctgggc atgatagctc 120
acgcctgtaa tcccacactt cggggggctg aggcaggtct gtacaaaaaa ttcaaaaaaa 180
ttagctcagt gtggtgggca cacacctgta gtcccagata ctcgggaggc tgaagtggga 240
caatcacctg agcctggcag tcaagctaca gtgaggcacg attgaacctc tgctctccan 300
cttgggtgac agagtaagac tctgtctcan aaaaaaaaaa acaaaaaaca gtggctatta 360
atcttcccct cagttcctcc catcctnctn cccttccccgg ggctagaaag ccgaagctga 420
gattcaatcc canangccag ctggatttgg gagacctcaa atgccangtc aggcataagt 480
tgcactctac ccacatcacc aagtgtcccc aggaaagcag aagtgtgtcc tcttnccttt 540
tcaggtctca cttctgctga catgggctan ggctgaanag ttccaatggg aaggtcacag 600
cccgtnccaa ggaaaanana aatgggaaca ngcattgggg agaccaactg tntgtaccca 660
tctcctnttt gtcctggnag aaggtcctct ttctg 695

<210> 986
<211> 640
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(640)
<223> n = A,T,C or G

<400> 986
ttgaactata ganacaagct acttgttctt tttgcaggat cccatcgatt cgaattccgt 60
tgctgtcgnc aacagccaca ggcagactga ggtggcaata ggaaatctgc cgagatgttc 120
agtcaggtgc ccaggacccc agcctcaggc tgctactacc taaattccat gacacctgag 180
ggccaggaga tgtacttgcg atttgatcag actacaagac gctctcctta caggatgagc 240
cggattctag cacgccatca gctagtgact aaaattcaac aaggtgagtg gccggcagtg 300
gaaggctgtt gctcattctg atttctgttg gctctatttc atgctaaccc anttttttt 360
gtttgtttgt ttccacttta taacatatgg atttctatgc cacactaccc gtaactttga 420
aaaataactt tangctgcag ttttcagcaa acaggacagt ccttagctgc cacatagctc 480
aacataaagt gcacaaaaaa cttcacggtg ggacagtgaa tcataaatnc ccaaactgac 540
gtgtgtctac agaacagatg agaactgtta ctcagtgtgt atcttaagag cttttctgca 600
gtttcctcac actccgtcac atttaaaatg tggcacttgt 640

<210> 987
<211> 669
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(669)
<223> n = A,T,C or G

<400> 987
ttnttcgnta caactctngt gnttntgcag gatcccatcg attccaangn tncngatgtc 60
gnnagaacgt ccctccttcc cttttgctcc tgtcccgcac cttctacctg atagatgtga 120
agcccaagcc gattgagata ccactcagtg ggaggctcc aaagactgat attcttgtgg 180
aattacctac tttcactgaa tctaaagaga acatggtgga tcttgcacct caactgaagg 240
gaactaagga tgaagacttt atacagccgc caccagttac atcatcaccc ataacaccat 300
caacacctat ttcattacct aaaggaccca tcacttcttc tgaagaacct acactccagg 360
ccaaatcaca aatgacggcc cagaacagca aggctagttc aaaaggagca taaaggacta 420
cttgaggatg gagctcactc tcttcaactt tcnggcctca acagtggcat ctgtaaagga 480
cctccagata aactgttggc ttcaaaaacg gatcactgtt agccgtgggc agnctttgag 540
gctggtacca ttccagtgat gtggtaggag accagtcaac ccttaaaaat atattgcaag 600
ccattcttga catgccccta cttgatagca cccataaaaa aaaaaactct ggcgtttctn 660
acnctaaan 669

<210> 988
<211> 749
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(749)
<223> n = A,T,C or G

<400> 988
ttattgnatc aactcttgtt ctttttgcag gatcccatcg attcgaattg gcacgaggcg 60
gtctccacgg gagccaccgg tcctgaaagc gcggagcatg ctttgtttgc ggaaacgaaa 120
gcgaatactt ctttccaagg agacttagga aagggcagac gctcccactg cctcaggtgt 180

tccctggagg accttcaagt ggccgccgtg tgggcggcta gcgtcccgct gctgcgctgg 240
ttccggagcc cttcccttgc ctctcccagg gtccttctcc cagcgtcgga ggaagcccgc 300
cgtctgcnan tggagtgcgg gtggtgggaa tccctgggag gattacgaaa tccttaaagt 360
gggatttacc aaacgcattc ctttccgctc acttccgttc ccgcttaaca aacgtgtttg 420
gaaacgtgtt gctactgaaa ggaaantggc gctgggcttg cattttctgt ggctagtctg 480
cgagaaacag ccctggaata gggcctctat tcttccttgg agcatncctt cccgggacct 540
gggaattgaa actctaggtt aagcacttga ancaggccca agactgggtc tctgaaatca 600
tggggctcta ccctgagtta actaagtttt caaaaatgtt actaggctaa agacttgtgc 660
ttcaaatgtt tanaaganag ttgggaaaag gcttttntaa aggtaatttt attggaaatg 720
ggatgttgtt accgattcgg cgtnttntt 749

<210> 989
<211> 839
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(839)
<223> n = A,T,C or G

<400> 989
tcttttntnt gancccatcg attcgcgggg acggagctcg gcgtgcttgc tgctggaggg 60
ttntggccct gcaaggctgt gggctccgac ctcaccggga gtcgacagcg agaggttnnn 120
cgaagagcga ggttctgggc gagcgctgaa cgccggcccc aagcaccccg ggtctttaca 180
cagtccgcgt ccacagactc tgacgaagac gtggatctgc tctcgcttta gctgctcgcg 240
gtcctccaga tcatgtccgc gactcctgcg actccgcgcg gaaaaaaaag tttgccaggc 300
gtggactcaa tgacctttcc aagctgtgcg cctcgctgcc tggaccgggt ctgagcgcgg 360
ctgcccaggt tgaccttttc tgcggaaggg ctttctctac gtgctgttgc tcatgggttt 420
ttgtcggagc cccaacgccc ttccggnctt ttgattcctg gaaanaaaag gggttggttc 480
cccttcaagc anccccaanc attccccggg aaaaaatggg ggagccaaag ggnttttggc 540
caanggcccc aatncccggn ttcaacccgt tgggttggna antttnaccn aaattaactt 600
cctttcctnc aaggcccgng gaaaaaacnt tttcccgggc cacngggggg gaaccaacct 660
tgcaangggg ccttgtaccn ggtcttcaaa cggcgggtnc caanaaccct tgccnccatn 720
gaaaccnant nggaacncct ngggggttnt tccccaatng gngcnccnaa aaaacaaccc 780
cggttccaac catttaaggg aaaannggcg ggggggcccc aagggccctt ttnggacnt 839

<210> 990
<211> 668
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(668)
<223> n = A,T,C or G

<400> 990
tatacatcaa ctacttgttc tttttgcagg atcccatcga ttcgaattcg gcacgaggtc 60
cgttggacct tctctgactt cagggtgagt cgtgaggtag gnagaggccc gggtttagcg 120
atgagaccag tatgaaacgg agggccacgg gagggcccga ggggagcagg cgacnctcag 180
ctatgggtta ccttctcttt gggaccgatg ggtgctgggg aggatccccc atttgcnttt 240
tagccgcacc ccctgagccg tctncgttcg accctgggat cctccagatc ccagattctt 300
angaaggacc ttggagatca gctggaccag cccctgactt gcctggtttc ggaagcggaa 360
acccaacggt gcccttagct gtcaaggatg ctgngggaag agtggagcct ctaacccgag 420
acgctagacc caatttggtg cccatnggag gagtgggant ggtanatgca ncaagaccac 480

tcctttcttg gcccaccatt tctctcacca tttttactgc agtgaactnc tctcagggtg 540
gggggctggt cagaagcaac ttccgctttt nataactctc acaaggtnct ttgtcggaag 600
gtgtgccttg ncttctaccc cacgngggtg gggagtgcga cncccaaggg gntttttttt 660
tttttttt 668

<210> 991
<211> 728
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(728)
<223> n = A,T,C or G

<400> 991
ggnttnnnnn nttttgnnnt nnatatanat cagctacttg ttctttttgc aggatcccat 60
cgattcgaat tcggcacgag cttaaaagaa aatgctatct gggagctcca acctgcaatt 120
aacctacaga aggaaccttt tgagaggctg gtgcagcgct tcggggaggc agattaagaa 180
ctgacctaga aacagaagtg aagtttgaag tctgctctct gcaaagaggg tgggagtggg 240
tggagaagag gcttgtttta aaagccaaaa acagaaagta aaaagaaatg ggaaagtaaa 300
accaaagcag caagtgactc tcttctgatg tgcacttttc atttttctcc cccacatttc 360
agtgttagaa agaaaacgag aggagctagg gaaagaagga gttggggaca gaagactaag 420
atttcaacgt gaaattccat ttacaaaggc tttactgcaa acaatagcta atttagtcct 480
gtaaacatgc atttatcata cattttaatt ttaatattaa aaatactgca tgtaaatgtt 540
ctgaactaaa ggtagatagc aatatgtagt ttgccataaa atgaatgcat gtcttattct 600
tttccatagt tcttcattaa tgagacttgt agtcaagaat agattgaaga taccattctc 660
cttgtgtagt tcaaaaaaat ctnctctggt aatactgaaa caactaattt ttcttatttg 720
gttggtcc 728

<210> 992
<211> 718
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(718)
<223> n = A,T,C or G

<400> 992
gancannaaa cncttnaacc ncccngctac ttgnncttnn tgcaggatcc catcgattcg 60
aattcggcac gaggccgcct ccgcgcnntt ttttggaggc tnngcaaggg aacttcgcca 120
cntccagatn cttcgggcca ttgggaangg cagctntggc aaggtgtgca ttgngcagaa 180
gcgggacacg gagaagatgt acgccatgaa gnacatgaac aagcagcagt gcatcgagcg 240
cgacgaggnc cgcaacgtct tccgggagct ggagatcctg cangagatcg agcacgtntt 300
cctggtgaac ctctggtact ccttcaggac gaggaggaca tgttcatggt cgtggacctg 360
ctactgggcg gggacctgcg ctaccacctg cagcagaacg tgcagntctc cgaggacaca 420
gngaggctgn acatctgcga gatggcactg gctctggact acctgcgcgg ccagcacatc 480
atncacagag atgtcaagcc ngacaacatt ctcctggatg agagaggaca tgcacacctg 540
accgacttca acattgccac catcatcaan gacggggagc gggcgacggc attaacaggc 600
accaagccgt acatggctcc ngagatcttc cactcttttg gcaacggngg gaccggntac 660
tacatcgagg tggactgntg gtanggtggg ggtgatggcc tatganctgt tgcganga 718

<210> 993
<211> 787

<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(787)
<223> n = A,T,C or G

<400> 993
tantcnancc ncgntcgant ccgtgctgtc ggttatacta ggaattcttt ataaacttaa 60
taaatgaaag ctttttctct tataggcccg attctctagt ggacttctgg tgaaattatg 120
tggctacctt ccattaatgt taatggaggt tatggatata aatccctcca tagtgatgga 180
agaatgagcc ccagagagaa gaatgtttct aatgaatcac tggattgtga tataggatta 240
acttggtgtc cctaatacca tttttttcc tcctgaaagt ttaaggtctt atgtttagga 300
actagtttct ctccacctta atcctttatt gtcaagtctg caataatgtt aagaacagga 360
aaaaaaaaat gtagattcct ggataggcac agtttttata ttaatgtaac tatataggca 420
tagtttttat attaatgtaa ctatacagca cctattttg tgttttacta ttacttggca 480
gacatcttga gtgttttaca aggttatcgt atatttcact aataatcgtt gcttgataat 540
ttggngcctg acagactgca gtttattatt tagtattaaa gctcctcagg aggttgagac 600
aggagaatca cttgaacctg ggaggtggag gttgcantga gctgangccc gcaccactgg 660
actccaacct gggcaacaga agtgagactc tgtctcaaag gacccnnnnn naaananaaa 720
nnttcctggg gccgtttttc cntaaaccca acttgaaana accettggtg agtttggcca 780
anccccct 787

<210> 994
<211> 699
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(699)
<223> n = A,T,C or G

<400> 994
ganntcgtta caagctactt gttctttttg caggatccca tcgattcgaa ttcggcacga 60
gggtagctgg gactataggc acacaccacc acgcccggct aattttttat gtttttgta 120
gagacagggt tttgccatgt tgcccaggct ggtcttgaac tgctgggttc aagcgatctg 180
ttctgctcag cctcccaaag tcctgtgatt acaggtgtga gctaccatgc ctggcccctt 240
tttacagatt tgaggatggt tttatatcac ctcaatttct gagaacctca agctatgaac 300
ttcgtttaag gtagttccaa gtttaaggta gaaccagttc caggttccta accccactcc 360
cagatacctg gcagaatcaa agatgaatct ccggaggagg gcaccttctt cctaattttc 420
aagggtcaat gagcagtaca gtcagaaata acaaagcgta cagggaaaca aaatgtgatg 480
cgagaaacaa cagaagcaat gaatagaata aaagaaaacc agactcacaa attctttgtg 540
tattatgagt acagagacaa ataaaaacct atgcttattg ngttcataga aataaaagta 600
cccttataaa taccttcatg gaatgggtaa caattaaaaa gtggcttggc agattttaag 660
aaggttaaac aaaaaaanaa nnnnnnnnna aaaanctcn 699

<210> 995
<211> 762
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(762)

<223> n = A,T,C or G

<400> 995
nttatcagct cttgttcttt ttgcaggatc ccatcgattc gaattcggca cgaggccact 60
gccgtctccg ccgccactgg gcccccagag ccccagcccc agagcctagg aacctggggc 120
ccgctcctcc cccctccagg ccatgaggat tctgcagtta atcctgcttg ctctggcaac 180
agggcttgta gggggagaga ccaggatcat caaggggttc gagtgcaagc ctcactccca 240
gccctggcag gcagccctgt tcgagaagac gcggctactc tgtggggcga cgctcatcgc 300
ccccagatgg ctcctgacag cagcccactg cctcaagccc cgctacatag ttcacctggg 360
gcagcacaac ctccagaagg aggagggctg tgagcagacc cggacagcca ctgagtcctt 420
cccccacccc ggcttcaaca acagcctccc caacaaagac caccgcaatg acatcatgct 480
ggtgaagatg gcatcgccag tctccatcac ctgggctgtg cgacccctca ccctctcctc 540
acgctgtgtc actgctggca ccagctgcct catttccggc tggggcaaca cgttcagccc 600
ccaattacgc ctgcctnaac cttgcgatgc gccaacatac catcattgac accagaatgt 660
gagaacgcct acccggcaac atcacagaca ccatggtgtg tgccaacgtg cangaanggg 720
gcaaggattc tggcaggtga cttcggggcc cttttggttg ta 762

<210> 996
<211> 668
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(668)
<223> n = A,T,C or G

<400> 996
tatacatcaa ctacttgttc tttttgcagg atcccatcga ttcgaattcg gcacgaggtc 60
cgttggacct tctctgactt cagggtgagt cgtgaggtag gnagaggccc gggtttagcg 120
atgagaccag tatgaaacgg agggccacgg gagggcccga ggggagcagg cgacnctcag 180
ctatgggtta ccttctcttt gggaccgatg ggtgctgggg aggatccccc atttgcnttt 240
tagccgcacc ccctgagccg tctncgttcg accctgggat cctccagatc ccagattctt 300
angaaggacc ttggagatca gctggaccag cccctgactt gcctggtttc ggaagcggaa 360
acccaacggt gcccttagct gtcaaggatg ctgngggaag agtggagcct ctaacccgag 420
acgctagacc caatttggtg cccatnggag gagtgggant ggtanatgca ncaagaccac 480
tcctttcttg gcccaccatt tctctcacca tttttactgc agtgaactnc tctcagggtg 540
gggggctggt cagaagcaac ttccgctttt nataactctc acaaggtnct ttgtcggaag 600
gtgtgccttg ncttctaccc cacgngggtg gggagtgcga cncccaaggg gnttttttttt 660
tttttttt 668

<210> 997
<211> 720
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(720)
<223> n = A,T,C or G

<400> 997
atcgcttgaa tccgggaggc ggaggttgca gtgggccgag ttagcaccat tgcactccag 60
cctgggcgac agagtgagac tccgtctcaa aaaataataa atgaagtaac aatggtgaag 120
tttgaagtaa ctcaggtgaa gtaacaccta agtggaaatt ccatactcca ctcagtaaac 180
catgcccggc ccccctcaaa tggttttatc tgtcacactg gtgctccatg caatggacaa 240

aggagacgtt tcctgtagga ccagcatctc tttactcagg tttttcaatc ttggaactgc 300
tgacattttg ggccaagtaa ttctttgttg cagggactgt cctgtgcatt tcaggatgtt 360
taacagmatc tttgtcctct acccattagt tgcttagtca gaataatcag aaaagtcccc 420
agacattgcc aaatgccccc tggagttgcc tggttgcctg ggttgagnat cactatgctt 480
aaagaaaggg gctcttggtt gtaaatccca gcacttttgg gaaggccgan gccggaagga 540
ttcacgaagg tcaggagatt cgagancatc ctggttaaca cagtgaaacc ccatctctac 600
ttaaaatncc aaaatttagc tgggcatggt gggcaagcgt ctgtagtccc agctactcgg 660
gaagcttaag caagagaatg tgcatgaaac ccgggaggtg gaactttcag tgagccnaga 720

<210> 998
<211> 690
<212> DNA
<213> Homo sapiens

<400> 998
tgcagctgtg cgtgaacggc tgccccctga gtgaacgcat cgatgacggg cagggccagg 60
tgtctgccat cctgggacac agcctgcctc gcacctcctt ggtgcaggcc tggcctggct 120
acacactgga gactgccaac actcaatgcc atgagaagat gccagtgaag gacatctatt 180
tccagtcctg tgtcttcgac ctgctcacca ctggtgatgc caactttact gccgcagccc 240
acagtgcctt ggaggatgtg gaggccctgc acccaaggaa ggaacgctgg cacattttcc 300
ccagcagtgg caatgggact ccccgtggag gcagtgattt gtctgtcagt ctaggactca 360
cctgcttgat ccttatcgtg tttttgtagg ggttgtcttt tgttttggtt tttwattttt 420
tgtctataac aaaatttttaa aatatatatt gtcataatat attgagtaaa agagtatata 480
tgtatatacc atgtatatga caggatgttt gtcctgggac acccaccaga ttgtacatac 540
tgtgtttggc tgttttcaca tatgttggat gtagtgttct ttgattgtat caattttgtt 600
ttgcagttct gtgaaatgtt ttataatgtc cctgcccagg gacctgttag aaagcacttt 660
attttttata tattaaatat ttatgtgtgt 690

<210> 999
<211> 1042
<212> DNA
<213> Homo sapiens

<400> 999
cattttcatt atcagaacaa caattagatg cccgacgtcg gggattggaa gaatatctag 60
aaaaagtgtg ttcaatacga gtaattggtg agagtgacat catgcaggaa ttcctatcag 120
aatccgatga gaactacaat ggtgtgtccg acgtagagct gagagtagca ttaccagatg 180
gaacaacggt tacagtcagg gttaaaaaga acagtactac agaccaagta tatcaggcta 240
tcgcagcaaa ggttggcatg gacagtacga cagtgaatta ctttgcctta tttgaagtga 300
tcagtcactc ctttgtacgt aaattggcac ctaatgagtt tcctcacaaa ctctacattc 360
agaattatac atcarctgtg ccaggcacct gcttgaccat tcgaaagtgg ctttttacaa 420
cagaagaaga aattctctta aatgacaatg accttgctgt tacctacttc tttcatcagg 480
cagtcgatga tgtgaagaaa ggttacatca aagcagaaga aaagtcctat caattacaga 540
agctatacga acaaagaaaa atggtcatgt acctcaacat gctaaggact tgtgagggct 600
acaatgaaat catctttccc cactgtgcct gtgactccag gaggaagggg cacgttatca 660
cagccatcag catcacgcac tttaaactkc atgcctgcac tgaagaagga cagctggaga 720
accaggtaat tgcatttgaa tgggatgaga tgcagcgatg ggacacagat gaagaaggga 780
tggccttctg tttcgaatat gcacgaggag agaagaagcc ccgatgggtt aaaatcttca 840
cgccatattt caattacatg catgagtgct tcgagagggt gttctgcgag ctcaagtgga 900
gaaaagagaa cattttccag atggcgaggt cacagcagag agatgtggcc acctagcctt 960
tccttatccc cttcccttcc cttcaccccc atcctcttac tcctttcatg tcccatttca 1020
gacagagtaa ccattaacaa aa 1042

<210> 1000
<211> 382
<212> DNA

<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(382)
<223> n = A,T,C or G

<400> 1000
gggaggtcct ccatgcgcag tcatgagtcg cttcaagttt atcgatattg gtatcaactt 60
gactgaccct atgttcagag gaatttatag gggggttcaa aagcatcaag tttatgatta 120
caggtggaaa tctacaagac agtaaagatg cactgcattt ggcacaaaca aatggtatcc 180
tcatatttct tttaccaaaa aaaaaatgaa ttaagtaatt ttgaagaagt ctttctgaaa 240
actgcttcag gtatgttttt cagtacagtt ggatgtcatc ctacaagatg tggtgaattt 300
gaaaagaata accctgatct ttacttaaag gagttgctaa atcttgctga aaacaataaa 360
gggaaagttg nggcaatagg aa 382

<210> 1001
<211> 409
<212> DNA
<213> Homo sapiens

<400> 1001
ccggactggg aagatggacg cagctactct gacctacgac actctccggt ttgctgagtt 60
tgaagatttt cctgagacct cagagcccgt ttggatactg ggtagaaaat acagcatttt 120
cacagaaaag gacgagatct tgtctgatgt ggcatctaga ctttggttta catacaggaa 180
aaactttcca gccattgggg ggacaggccc cacctcggac acaggctggg gctgcatgct 240
gcggtgtgga cagatgatct ttgcccaagc cctggtgtgc ggcacctagg ccgagattgg 300
aggtggacac aaaggaagag gcagccagac agctacttca gcgtcctcaa cgcattcatc 360
gacaggaagg acagttacta ctccattcac cagatagcgc aaatgggag 409

<210> 1002
<211> 441
<212> DNA
<213> Homo sapiens

<400> 1002
ccaggctggc tgtttttctt ggtgaatgtt ctccaggctg gttatttttc ttggtgaatg 60
taatgtactg tctttttaga gtaagttact aagctggtta ctaaatcagg aatattttag 120
ttataaaact ttagattttt aagaatattg gcsaggcacg gtggctcaca cctgtaatcc 180
cagcacgttg ggaggccaag gcgggtggat cacctgagat cgggagttca agaccagcct 240
ggcyaacatg gtgaaacccy gtctctacaa awgaaaaaaa tacaaaaatt agcygggtgt 300
kgtggygyat gcstgtaatc ccarytaytt gggwggctga rrcasgagaa tygcttgarc 360
ytggarggcg gaggttgcmg tgagcyraga tckygccayt gcactccagc ctaggcaaca 420
agagcaaaac tccatctcaa a 441

<210> 1003
<211> 422
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(422)
<223> n = A,T,C or G

<400> 1003

gcatgttcgc aatgtatgag gaaggtgggg ctctggggct tccagcagat tgaatcgtcc 60
atgactgacc tggatgcatc ctttggcctg accagctccc caatcccagg ccttgagggg 120
cgaccagagc gcttacctct ggtgcctgaa tctcctcgga ggatgatgac ccggagccag 180
gatgccactt tctccccagg ctcagagcag gctgaaaaga gccctggtcc cattgtctct 240
cgaactcgga gctgggactc ttccagtcct gttgaccatc ctgagccaga ggctgctagc 300
cccaccacca gaactcgccc agtgacccga agcatgggaa caggagacac ccctggcctg 360
gaggtaccat ctagccctct gcggaaagcc aagcgagcng cctctgttct tcacaattcg 420
ga 422

<210> 1004
<211> 805
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(805)
<223> n = A,T,C or G

<400> 1004
aattcggcac gaggaagtac tgtggctgta tacagaacct gtatgctggt tgttcttttg 60
cgggtccaga taaacataat tggtggatat atttacctgg ataatgcagc agttggcaaa 120
aatggcacta caattcttgc tccccagat gtccaacagc agtatttatc aagtattcag 180
cacctacttg gagatggcct gacagaattg atcactgtca ttaaacaagc tgtgcagaag 240
gttttaggaa gtgtttctct taaacattct ttgtcccttt tggacttgga gcaaaaacta 300
aaagaaatca gaaatctcgt tgagcagcat aagtcttctt cttggattaa taaagatgga 360
tccaaacctt tattatgcca ttatatgatg ccagatgaag aaactccatt agcagtgcag 420
gcctgtggac tttctcctcg agacattacc actattaaac ttctcaatga aactagagac 480
atgttggaaa gcccagattt tagtacagtt ttgaatacct gtttaaaccg aggttttagt 540
agacttctag acaatatggc tgagttcttt cgacctactg aacaggacct gcaacatggt 600
aactctatga atagtctttc cagtgtcagc ctgcctttag ctaagataat tccaatagta 660
aacggacaga tccattcagt ttgcagtgaa acacctagtc attttgtttc aggatctgtt 720
ggacatggga gcaagtgaaa gganttgctg ctaatgtgta tggaggcttt taggtacccc 780
tcaggcaatc gggagaattg gnttt 805

<210> 1005
<211> 423
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(423)
<223> n = A,T,C or G

<400> 1005
ctcctctgtc cagaggtctt caacaggaag atgccagctg gcaccactgc actgtgatgg 60
gggccctctc ctctgctgac tctgccgttt ctccaggcct ccgctcagtg atgagaccaa 120
gagatcggag acaagcatgg tgctgctgct tctgctgctt ctccagaaaa tccctgggac 180
acctttgttc cagcctggtt tcctgggctg ggctcaggaa agctgccaaa ttcagtccta 240
tgttgggtcc aagctgcccc tgtgctgttt ctgtcaagcc aggtgtggac attccaagtt 300
catatgcgtg aacaaaagaa aagaggaacc cagtggatgt aacagaaccg actccagttg 360
aatgtttaga tttttgctaa actgttttct ttttcccttt ttngctgtng tttgcattca 420
cgg 423

<210> 1006

<211> 813
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(813)
<223> n = A,T,C or G

<400> 1006
accctttgac tttctgcagg aacccatcga ttcgctggtc agttcagtcc ctatgaatgt 60
ctcttctaca ggaggctacc ctgcccctgc taccctggga gaagcctcag ctttctgggc 120
agagtttgtc tccctgtcat ttatactctc aggctttata catttacasa gtaagttctc 180
cctcctggag gkttaaaagg aataatttca acagggtgaa ggcctggcac ggtggctcac 240
aactgtaatc caaggacttt rggaggctga ggtgggtgga tcacctgagg tcaggaattw 300
gagaccagcc tggccaactt ggtgaaaccc tgtctctact aaaaacaaaa attagccagg 360
tgaggtggca cacacctata gccccagcta ctgggggagg ctgaggcagg agaattgctt 420
gaacctggga ggcagaggtt acagtgagct gagatggcac cactgcactc cagcctaggt 480
gacaaagcag caagacgcag nctccaaaac anaacaacaa caacaaaaaa naaccgggaa 540
aacaggtaca gacaatagct gcctggagtt gtacagaaac ttgattgggt aaccctggga 600
cctttccagg ctgtggccag cagttgaccc tgcctgcctt tcctccattg ttttcccatg 660
tctgaccttc cctgtttgca aagcagtggg cctacttaca ngggtctctc tggaagggag 720
caaggaggct cagtggcccc attcagcaat ttcgaagtcc cctttaattg ttttgtgctt 780
ccaacctgtt ttgttccccg ttcagatttc tcc 813

<210> 1007
<211> 844
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(844)
<223> n = A,T,C or G

<400> 1007
gctctgcggc gccgcggtcc cggcaccccg ggccctgtgg ctcggccatc gtattcctcc 60
tttactcagg gggacagctg gggtgaaggc gaagtcgacg aggaggaggg atgcgaccaa 120
gtggcccgcg acctgcgggc ggagttctcg gctggggcgt ggtcagagcc cagaaagcgc 180
tcggtgctcc cgccggacgg gaacgggtcg cccgttctgc ccgataagcg caatggtatc 240
tttcccgcgg ccgcgggcag cagagcccag cctcggcggt ggccggtcca ggtcctctct 300
attctctgct cgctgctctt cgccattctt ctcgccttcc tcctcgccat cgcctacttg 360
atcgttaaag agttgcatgc tkagaawttg aaaaatgaag atgatgtaga cactggacta 420
ttaggattct ggactctact tataatatcc ctaactgctg gattctcctg ttgcagcttt 480
tcttggacag tgacttactt tgattctttt gaaccaggaa tgtttcctcc tactcctctt 540
tcacctgcca ggttcaagaa actgactgga cattctttcc acatgggcta tagcatggcg 600
attttgaatg gcatcgtagc tgctcttact gtagcatggt gcctcatgta aacccacact 660
ggagcgatat tgttggcaaa acttaatcat gattgttttg taataacmag aaggagcatc 720
actgtcttac tcaggaagga ctgaggaaac ctggctkgtt cattatgtag tttcaggata 780
ttttatccac caatccatcc ctccatttat ggggnaggac cntttttttaa aggncattgt 840
tttt 844

<210> 1008
<211> 401
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(401)
<223> n = A,T,C or G

<400> 1008
gggagccaag gcctgccagg gagaggctct tggagtggcc cgaccgggaa ctggatcggg 60
tcaacagctt cctgagcagc cgtctgcagg agatcaaaaa cactgtcaaa gactccatcc 120
gtgccagctt cagtgtgtgt gagctcagca tggacagcaa tggcttctct aaggaggggg 180
ctgctgagcc tgagcctcag agtctacccc cctcaaacct cagtggctcc tcagagcagc 240
agcctgacat caaccttgac ctgtcccctt tgactttggg ctcccctcag aaccacacgt 300
tacaagctcc aggcgagcca gccccaccat gggcagaaat gagaggcccn nncccnccat 360
ngnccgaggt gagggggccc ctccggtatc gccccgagaa c 401

<210> 1009
<211> 576
<212> DNA
<213> Homo sapiens

<400> 1009
gaccgcgggg tggttggttc tagctattgc catggtacgt ttttatatgg aaaaaggaac 60
acacagaggt ttatataaaa gtattcagaa gacacttaaa tttttccaga catttgcctt 120
gcttgagata gttcactgtt taattggaat tgtacctact tctgtgattg tgactggggt 180
ccaagtgagt tcaagaatct ttatggtgtg gctcattact cacagtataa aaccaatcca 240
gaatgaagag agtgtggtgc tttttctggt cgcgtggact gtgacagaga tcactcgcta 300
ttccttctac acattcagcc ttcttgacca cttgccatac ttcattaaat gggccagrtg 360
gcgatawytt gcaktttaky wtctcywtrt cctgtgcatg ctkakttkst ggtgtaacky 420
cwkasaatta aaatwcgctg tttcagcccc acgatgccag aatgctgtta taggaggtat 480
aactggtata actaataatt atacaagtta tgatttgtat tctaaaagct taatgatgag 540
agaggaatcg tattaataaa tattttgagt gaaatc 576

<210> 1010
<211> 429
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(429)
<223> n = A,T,C or G

<400> 1010
aattcggcac gagatcttgt tgagcttgta aaatgccagc aatttaaaac taggactttt 60
ccccccataa gccaaggagg tagaattact aatacaaggg ttaaagaagg tagattttgt 120
tttcaatatt tgggtaatat tagaaagatt cttcccacag ggaagaacta gcaagtgtcc 180
caatttttc caaacgttgg ggaggggaaa attcactgta tcatgaaacc ctaagggttt 240
gttgcacttc ctgcttttta ggcctggata acagtatcac catccttatt tacagaaggg 300
taaaactgac tcttaatgag aaaagcttta taagttcaag ggctgtaaaa tatgaactac 360
ttaaggtcgt ttgccttcca tgggaacttg gctagactta naaaaagctg ttgttgngct 420
aatgtaaaa 429

<210> 1011
<211> 755
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(755)
<223> n = A,T,C or G

<400> 1011
acgctctcgg gagcagttct gttaatccct gctgggagca gagactgcga aaagctgagt 60
ccgccgatcg tgcccgggac aaggctgcct tccactcgcc gcatctacct ggtaggcggc 120
atgcgcacgg gcttagaggc ttgagagcct ctggaagaga aagggtccca ggaaggaaac 180
ctgccccggg cctaagtgtc ggcgcccaga tcaccacgaa ccccgcacct aggcgccgcc 240
caccaagttc caaagaagtc cgaggcgacc tgggagtcgg tcggatccca gccgagaaaa 300
gaaacaagca ggatagcaat tcttakggga gccaccctgg gagttttagg cagcgtttgc 360
ctttccctgg ttttcttcac caagccccat cctccccccg cataccaccc ccagtcaaaa 420
gagtgggaga aaatgcacag ttcgaagtcg gtgagagcaa aaatgggtct agtaaatcaa 480
cccgtggtgg tagctaaaag gtttggggct gcaaagaaac aaactgtaag ttttgagcaa 540
caaacttttt cttcaatctg taatatgtcg aaatgggaag gggtgttgc aaaagccaac 600
ttaccactgt tcaaacttag gcccgtttac aacatggggg aaagggcgta tttctttact 660
tattatcttc aacaacggtt aacatggntg ttttccttnc tttaccctng atgtttggaa 720
ctgncgattc ntcctccggn tccattgttc cgggg 755

<210> 1012
<211> 871
<212> DNA
<213> Homo sapiens

<400> 1012
gggtgttttg ctggagatca gtcaacagtt ctctgaagca gtgtcgatgg gcctatccac 60
gtcaggtctt catttctgat attgctttaa atagaaatga aattctattt gttacgcaag 120
atggagaagg atttagaggg agatggtttg aagagaaaag aaagagttct gaaaagaaag 180
agattttatc aaaccttcac aattcctcat cagatgtgtc ttatgtctct gatataaata 240
gtgtgtatga aagaattcga cttgagaaac ttacctttgc acatagagct gttagtgtca 300
gcacagatcc aagtggatgc aactttgcaa tcctgcagtc agatcctaaa acaagccttt 360
atgaaattcc agctgtgtcc tcatcatcct tttttgaaga gtttggcaaa ctgttgaggg 420
aagcagatta aatgtacagc attcatgatg tgacatttca agttggcaat agatctcttc 480
cctgcacata aatatatttt ggccagtgca ttctgatatt tttcagaaat tgtttctctc 540
agatggtaat acttcagaat ttacagatat ttaccagaaa gatgaagatt ctgcagggtg 600
ccatctcttt gtggtagaga aggttcatcc tgacatgttt gaataccttt tacaatttat 660
atacacagat acttgtgact ttttaactca tggcttcaaa ccaagaatac acttaaacaa 720
aaacccagaa gaatatcagg gaactctgaa ttctcatttg aataaagtga atttccatga 780
agatgataac cagaagtctg catttgaagt ttacaaaagt aatcaagctc aaacagttag 840
tgagaggcag aagagcaaac ctaaatcttg t 871

<210> 1013
<211> 498
<212> DNA
<213> Homo sapiens

<400> 1013
acagcactga gctagaggac gacgccatct attcagtgca cgtccctgct ggcctttacc 60
ggatccggaa aggggtgtct gcctcagctg tgcccttcac tccctcctcc ccgctgctgt 120
cctgctccca ggagggaagc cgccacacga gcaagctttc ccgccacggc agtggagccg 180
acagtgacta tgagaacacg caaagtgggg acccactgct ggggctggaa gggaagaggt 240
ttctagagct gggcaaagag gaagacttcc acccagagct ggaaagcctg gatggagacc 300
tagatcctgg gcttcccagc acagaggatg tcatcttgaa gacagagcag gtcaccaaga 360
acattcagga actgttgcgg gcasccmaga grwtswcatc ttgaagacag agcaggtcac 420
caagaacatt caggaactgt tgcgggcagc ccaggagttc aagcatgaca gcttcgtgcc 480

ctgctcagag aagatcca 498

<210> 1014
<211> 575
<212> DNA
<213> Homo sapiens

<400> 1014
gaccgcgggg tgggtggttc tagctattgc catggtacgt ttttatatgg aaaaaggaac 60
acacagaggt ttatataaaa gtattcagaa gacacttaaa tttttccaga catttgcctt 120
gcttgagata gttcactgtt taattggaat tgtacctact tctgtgattg tgactggggt 180
ccaagtgagt tcaagaatct ttatggtgtg gctcattact cacagtataa aaccaatcca 240
gaatgaagag agtgtggtgc tttttctggt cgcgtggact gtgacagaga tcactcgcta 300
ttccttctac acattcagcc ttcttgacca cttgccatac ttcattaaat gggccagrtg 360
gcgatawytt gcaktttaky wtctcywtrt cctgtgcatg ctkakttkst ggkgkaacky 420
cagagaatta maattcgtgt ttcagcccca cgatgccaga atgctgttat aggaggtata 480
actggtataa ctaataatta tacaagttat gatttgtatt ctaaaagctt aatgatgaga 540
gaggaatcgt attaataaat attttgagtg aaatc 575

<210> 1015
<211> 383
<212> DNA
<213> Homo sapiens

<400> 1015
gcaggcctca tgggaggatt tgatgaagat gttaaagcga aagtggagaa ccttctcggg 60
atttccagcc tggaaaaaac ggaccctgtt aggcaagcac cctgcagccc tccctgtccc 120
cttcttcccc tccccttccc ccgcccgtgg agacagctgt tctcagcagg gctctccgca 180
gggagggggc cggctccttc cctggcagca acatccttgc ccttgtcaca caagtcagcc 240
tccatctgcg cagctctgtg gatgcgctgc tggagggcaa caggtatgtc actggctggt 300
tcagccccta ccaccgccag cggaagctca tccacccggt catggttcag cacatccagc 360
ccgcagcgct cagcctcctg gca 383

<210> 1016
<211> 545
<212> DNA
<213> Homo sapiens

<400> 1016
cagcctcctg catcatcctc gtcttcatct tcctgcggta ccccctcacc gactactaag 60
gcccgccagg cacggctgct ggcggagaca agcactgaga catgtttatt ctcatggtcc 120
ctgaaacgca ggatcccatg aggttggggc agggcagggc ttcttgtcct ggggccccct 180
tgagctgtga actgggcagc aaggccatca gaagctgagt acagcarggg gcagtgagct 240
tggccctcag tccacccccct ccgcctcctg gcctccrccc tgcctgtgtc tggggcctgg 300
gggcttctcc cctcgctgct gcaccctggc ttccagcgtc tgtgtccctg ccctcacgtg 360
cccttccca ggctcctggg gcccttgga cctgacacct agcaggaagg gcttatgcaa 420
aattgtccca ggttgggagg actcactctg tgctccccga ccctgcctcc tccacgatgt 480
gaccccgctc agagcccttg tgtctgtgaa ctttcaatga aatacccatg cagctccaaa 540
aaatc 545

<210> 1017
<211> 530
<212> DNA
<213> Homo sapiens

<220>

<221> misc_feature
<222> (1)...(530)
<223> n = A,T,C or G

<400> 1017
aattcggcac gaggtggaag gacagcatcg atgaactctc ctggaggtca ctgcaaaggg 60
tggcagaccc tgctgaggtc cctgaatctg cagcctccag acaataaact gaaccttacc 120
cagaaggctg gcacaaagcc cccagctctg tgggtaggat ctccccttca ctgccctctc 180
tctgagaaag gacagcacac ccttgggaaa agggggagga gagagactga gccacaaatc 240
ccactgctgg aaattaccta ttcagcagag aagctgggtc ttgggctgtg aatcactgca 300
ggcctcctga taagctgctg cctccagccc tgcacagctg tctgttgaga gataacagcc 360
tcataagctt ctctgcccaa ctccaagcca gctggggggt gggggtgctg ctgtgtgctg 420
gaagarctct ggtgagttgg gggtggcata cagccccagg atctcagaag cagatctcat 480
cccatgcaac tcagcagcnc ccctggaaag ggggagatgc ggnagnatgt 530

<210> 1018
<211> 610
<212> DNA
<213> Homo sapiens

<400> 1018
cagaaattcc tgttctccct gagccagcat atcaactggg tccgctgtgc caagttctcc 60
cccgacgggc ggctcatcgt gtctgccagt gatgacaaga ctgttaagct gtgggacaag 120
agcagccggg aatgtgtcca ctcgtattgt gagcatggcg gctttgtcac ctatgtggac 180
ttccacccca gtgggacgtg cattgccgct gccggcatgg acaacacagt gaaggtgtgg 240
gacgtgcgga ctcaccggct gctgcagcat tatcagttgc acagtgcagc agtgaacggg 300
ctctctttcc acccgtcggg aaactacctg atcacagcct ycagtgactc aaccctgaag 360
atcctggacc tgatggaggg ccggctgctc tacacactcc acgggcatca gggaccagcc 420
accactgttg ccttttcaag aacgggggag tattttgctt ctggaggctc tgatgaacaa 480
gtgatggttt ggaagagtaa ctttgatatt gttgatcatg gagaagtcac gaaagtgccg 540
aggcccccag ccacactkgc cagctccatg gggaatctgc cagaagtgga cttccctgtc 600
cccccaggca 610

<210> 1019
<211> 843
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(843)
<223> n = A,T,C or G

<400> 1019
gcactcccag gatcgggtca tcggcacaaa aggagacatt gcccacattt atgatattca 60
gactggcaac aagctgttga ctctgtttaa cccagatctt gccaacaact acaagaggaa 120
ctgtgccacc tttaatccta cagatgatct tgtcttaaat gatggcgtcc tctgggatgt 180
ccgctctgca caggccatcc acaagtttga caagttcaat atgaacatca gtggtgtttt 240
ccatccaaat ggactggagg tgatcattaa tactgagaat ttgggacctt cgaacttttc 300
atcttttgca tactgttccc gctctggatc agtgtcgcgt ggtgttcaat cacacgggaa 360
cagtgatgta tggagctatg ttgcaggcag atgatgaaga tgacttaatg gaagagagga 420
tgaaaagccc ctttgggtca atccttccga acatttaatg caacntgact acaaacctat 480
agcaaccatt gatgtgaacg gaacatyttt gacctgtgta cagacaccaa agactgctat 540
cttgctgtca ttgagaatca aggcagcatg gatgccctga acatggacac agtatgcagg 600
ctgtatgaag tgggcaggca gcgtctggca gaggatgagg atgaagagga ggaccaggaa 660
gaggaagaac aggaggaaga agatgatgat gaagatgatg atgacmccga tgatttagat 720

gagcttgaca ctgaccagtt gctggaggcg gagttggagg aggacgncaa taatgagaac 780
gcaggggaag atggggncaa tgaacttctc tcccttctga tgtaggagct agcaaacctt 840
tct 843

<210> 1020
<211> 458
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(458)
<223> n = A,T,C or G

<400> 1020
ggggccacca atctggccga cctcaggctc tgggaaacag gctgccctcg tccctctgcc 60
tgtgggtggc tgaggcttct cagcccatct ccagttctct gcagcaaagg ccctctgttt 120
ctgtcctgca gtgggggccc tttcgtggtt aaacatgtcc ctcccctcct cacagaactg 180
agtacctatt gcggctgggc ccgcccaacc ctgtgtccct gcacccatgg gttctaccac 240
ctgattcggc tgcagctgtc actgtcccgt gtctgctctc tgtcaggcct ctgagtgctg 300
cagacgtatt aacatatcac cgctagttga tggaaagtct tgtttcttat tagaatattt 360
tgtgtaggca cagggtkscc cagcacctgt ctatagcaac cccagtgtcc tcacagtgca 420
cgtgagccgt gaccgcagnc aacgttgagt cgcgcctg 458

<210> 1021
<211> 389
<212> DNA
<213> Homo sapiens

<400> 1021
ctctctccca ttctgttttg ccagatagct gatctggcca atgaagatac tccacagttg 60
tatgtggcct gtggtagggg accccgatca tctctgagag tcctaagaca tggacttgag 120
gtgtcagaaa tggctgtttc tgagctacct ggtaacccca acgctgtctg gacagtgcgt 180
cgacacattg aagatgagtt tgatgcctac atcattgtgt ctttcgtgaa tgccacccta 240
gtgttgtcca ttggagaaac tgtagaagaa gtgactgact ctgggttcct ggggaccacc 300
ccgaccttgt cctgctcctt attaggagat gatgccttgg tgcaggtcta tccagatggc 360
attcggcaca tacgagcaga caagagagt 389

<210> 1022
<211> 869
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(869)
<223> n = A,T,C or G

<400> 1022
gcacctccag agcatgaggc tctaagggga catgagtaaa gcatgtctgt gacccagtga 60
ggaagggaga ggccagctgc actcctgcac ggggttccta gctgcagaag ggtcccgcct 120
aggccgaggg gaaacacctg atagcagaag aggcctggat gcacacctgg cacgccgagg 180
ctctccgccc agacacagtg ctccatgtca gcccctgcac ctggggtgtg tgattcacgt 240
gcacagatgc cacaatcctg caccaatatc ccacagatgg gggaagggtg agaggaaggg 300
gsaagtgatg tgtaactgct caagagatgc ttaaacctcc atagagagga gccgggcgca 360
ggggcatctg tgtgtcccgt cacacactgc agcagggaag ggtggctggc tggctccctg 420

gcatcagtgg tttggtttaa gctccagagg ktcttattgc cattgtcttt tcctctgccc 480
cttgagccag cctaaggcct ggangtctgt ttctttaagg cggatgaact gacatgctcc 540
taccaatgac caaggctctg ggcaaaggct cctcacagta tccttgagaa ggtgggcatg 600
gaagtgccaa tttctcaggt acagaaacct tcagagagga taaatagctt tgccctgtag 660
aagcaggact gaaacccttg tccgcctgac tcccccagct actctgccca ctgtagcccc 720
ctgccttact tgtcctggca aaccctcaac atcctgtata ccttaaatat ccaagagggc 780
aagagagaaa ggcttaaaga taagtaattt ttaaggacct tataatattt ttaagaagta 840
cccaatagtg gcgtgnaatg ccaaaaaaa 869

<210> 1023
<211> 706
<212> DNA
<213> Homo sapiens

<400> 1023
gcaaaataca ctttcaaatt aagaatgggt ctgtgatgtc acatctagga gcacctaccc 60
atggacagac atgtcttccc atggaggagg ctttcgagct acccttggat gattgtgaag 120
tgattgaaac tgcagcagcg tccgaagtga ttaaatatga gyatcwtgtc ttatgcagay 180
tsctstagct ascawgtgcs tgtwcttwwc ttyagrrctc tgmagmtkyt tagatgggag 240
acctttaact ctgaaggaca tatgggaagg agttcatgag tgctataaga tgcgactgct 300
acaggaccca tgggacacta ttacgcaaca ggaacatcca atacttgggc aacccttttt 360
tgtacttcat ccctgcaaga cgaatgaatt catgactcct gtattaaaga attctcagaa 420
aatcaataag gccaaaagag aaacattggc tactttgaca accttaaagc ggactccagg 480
aatatcacca acagcatgac ctttgcgacc aaatccagca accagaactt catcattttc 540
ctggaataaa ataagaagtt tatttctggt gttggtggcg atcacaaaaa tactttcatg 600
tgaggaaact ccccttgcatc agataaaaat gtgagggagg ccacccccaac aacagaaggt 660
acgatagagt tgaaatactc acctcaataa agttcaagca accgtc 706

<210> 1024
<211> 403
<212> DNA
<213> Homo sapiens

<400> 1024
ctggcccacc ccctcctgga cccatccttc ggccccagaa ccctggggcc aaccctcagc 60
tgcgaagcct cctcctcaac ccaccaccgc cgcagactgg ggtgccccca ccccaggcct 120
ccctccacca cctccagcca ccaggggctc ctgcgctgct gcctccgccg caccagggcc 180
tggggcagcc ccagttgggg cccccactcc tgcatccacc acctgcccag tcctggcccg 240
cacaacttcc ccctcgggct ccactgccag gtcagatgct gctgagcggg ggtccccggg 300
gcccggtccc ccagccgggc ctgcagccca gcgtcatgga ggacgacatc ctcatggatc 360
tcatctgaat ccccaacacc caataaagtt cctttttaac acc 403

<210> 1025
<211> 405
<212> DNA
<213> Homo sapiens

<400> 1025
ggccccgcgg ggcagccatg cctggccgtc tgctgcgggg cctgtggcag cgatggcgcc 60
gttacaagta ccgcttcgtt ccctggatcg cactgaacct aagccacaac ccgaggtaca 120
gtatatcaga agtatgagcc gatctttttc cagtccattg gaaatccgtt tatttttaga 180
tgcctggatg gggtactcat tgatgggaat gacaaaggga tatcaaaagt tgtgtacaga 240
tcttgcaatg ggagggatcg actcggccct ttaaaaatga gtgatagtac atggctaacg 300
tcagaaattc ataaccctct ggctgtggga cagtatgtca acaattgttc caatgacaga 360
gcagctaatg tctgttatca ggaatttgat gtgcctgcag tttcc 405

<210> 1026
<211> 582
<212> DNA
<213> Homo sapiens

<400> 1026
cttctgctgg gactggccat tatctcaggg cttctgttgc attatagccc tgtgttctgc 60
tggaaagtag gaaacacttc caggggacaa aacatggatg atgtcatggt tttggtggat 120
tcagaagagg aagaggagga ggaggaggag gaagatgctg cagtagggga acaggaggga 180
gcacgtgaga gagaggagtt gccaaaagaa atacctaagc aggaccacat tsacagagtg 240
accgccttgg tgaatgggaa catagaacag atgggaaatg gattccagga tctwcaagat 300
gacagcagts aggagcaaag tgacattgtt caagaagaag acaggccagt ctgaagaaga 360
ggatggtcca tggttgtctt gctctgaaag cttggagagc tacattgaag acgagctctt 420
cattcagctt tgactccact ctgccacctg gcgggggctt gcactaacaa tgtttgggtc 480
tcagcaaaaa acaaaaccaa gcacacacat ctttccttcc atgtattgaa aaacattggt 540
ttgatttgct ctaagttttc ccaatgatgt ttaaaagctt tg 582

<210> 1027
<211> 1101
<212> DNA
<213> Homo sapiens

<400> 1027
caagacaatt ataggagatt ttcagaagga acagaaaaaa tttgttgaag agcaacatac 60
aaagaagtca gaagcagctg tgccccccatg ggttgacact aacgatgaag aaacaattca 120
acaacaaatt ttggccttat cagctgacaa gaggaatttc cttcgtgacc ctccggctgg 180
cgtgcaattt aatttcgact ttgatcagat gtaccccgtg gccctggtca tgctccagga 240
ggatgagctg ctaagcaaga tgagatttgc cctcgttcct aaacttgtga aggaagaagt 300
gttctggagg aactactttt accgcgtctc cctgattaag cagtcagccc asctcacggs 360
cctggctgcc caacagcagg ccgcagggaa gggaggagaa gagcaatggc agagagcaag 420
atttgccgct gccagaggca gtacggccca aaacgccacc cgttgtaatc aaatctcagc 480
ttaaaactca agaggatgag gaagaaattt ctactagccc aggtgtttct gagtttgtca 540
gtgatgcctt cgatgcctgt aacctaaatc aggaagatct aaggaaagaa atggagcaac 600
tagtgcttga caaaaagcaa gaggagacag ccgtactgga agaggattct gcagattggg 660
aaaaagaact gcagcaggaa cttcaagaat atgaagtggt gacagaatct gaaaaacgag 720
atgaaaactg ggataaggaa atagagaaaa tgcttcaaga ggaaaattag ctgttcctga 780
aatagaagaa taatccttaa cagtctgcaa actgacatta aattctagat gttgacaatt 840
actgaatcag aaggcatgaa agagtataat tttatgaaat tcaaaattat tctttttttca 900
agttgaaact tgcctcttct actttaaaaa agtatataga acagttactt ctaataatca 960
gaaagagatg ttttatagaa catttcttta atataaagtt agagatgtct tcataggcag 1020
tatggctatc tttgccacag aaacataagt aaaatttag agttctgttt tccatgaggt 1080
caaaaatata atttattcct c 1101

<210> 1028
<211> 1471
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(1471)
<223> n = A,T,C or G

<400> 1028
gtctttcact cttctggcat cggtggtttt acttcttcga ttgaaccctg cttcctcgac 60
ccccctggga ggccgccttc ttcaggcgcc tcccttctct ccacgagctc gctctgacag 120

ctgaggaact ggcaagatcc tgctacccag agggtgaatg ggtatctttc ccggartrry 180
sytwmykwyt strrgagsyk magyttscma cgkcgkccga tgatysyrag crgacaccag 240
aaaagtacca ctgtaagtca tgagatgtct ggtctgaatt ggaaaccctt tgtatatggc 300
ggccttgcct ctatcgtggc tgagtttggg actttccctg tggaccttac caaaacacga 360
cttcaggttc aaggccmaag cattgatgcc cgtttcaaag agataaaata tagagggatg 420
ttccatgcgc tgtttcgcat ctgtaaagag gaaggtgtat tggctctcta ttcaggaatt 480
gctcctgcgt tgctaagaca agcatcatat ggcaccatta aaattgggat ttaccaaagc 540
ttgaagcgct tatttcgtag aacgtttaga agattcgaat gcaggctcaa ggaagcttgt 600
tccaagggag catgattggn agctttatcg atatataccn aacnagaagg caccaggggt 660
ctgtggaggg gtgtggttcc cactgctcag cgtgctgcca tccgttgtag gagtagagct 720
accagtctat gatattacta agaagcattt aatattgtca ggaatgatgg gcgatacaat 780
tttaactcac ttcgtttcca gctttacatg tggtttggct ggggctctgg cctccaaccc 840
ggttgatgtg gttcgaactc gcatgatgaa ccagagggca atcgtgggac atgtggatct 900
ctataagggc actgttgatg gtattttaaa gatgtggaaa catgagggct tttttgcact 960
ctataaagga ttttggccaa actggcttcg gcttggaccc tggaacatca ttttttttat 1020
tacatacgag cagctaaaga ggcttcaaat ctaagaactg aattatatgt gagcccagcc 1080
ctgccagcct ttctactcct ttgccctttt cccgtgttct aatgtatttt gacaatgttg 1140
taagtgttta ccaagccgtt ggtctcctaa gggcctcctg atggaagaac agtggggtgg 1200
ttcaaagtta tttctatgtt tgtgttacca tgttaacttt tccccgagag aaagtgttaa 1260
cattgagact ctggccccag attggtatct tctatgaaga tggatactga tgggtgacat 1320
tgaaaacggc ctgctttcca aatgtggtta aatgtaattg gttagcccca gacttgggct 1380
agagcagaag gcataggcca gggtggttat tgctatatgt gttacagacc tcggttctca 1440
ttaaagtatt tattggcaga atcacaaaaa a 1471

<210> 1029
<211> 912
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(912)
<223> n = A,T,C or G

<400> 1029
tatgagnnat gnnaccttca aacaagctac ttgttctttt tgcaggatcc catcgattcg 60
ccagctcata ctttccttcg ctgtccctcc cgcactcctt aggcaagatt tcccagtaaa 120
gattttctgt gcgtatttta aaagtcgtgt taatactcat gataattatt agggacctgg 180
cagcgtgatt ggagtatgga tgtttccgta aaagctggaa ttccgtaaaa gcattgacgc 240
agcccctaca ctccatccca accaagaaac tgcatttcct ggggccaggt gggagctgcc 300
tttgccccac tgcctcccct gttctgctct ctcagtcaac atgtggaaat ccaaggagga 360
caaagactcc agccacgctg cttaaatagg gctcctctct cctctctctc tctctaggtg 420
gtaaggttgg ggattaagtc caggtacaga agcaaaactt tttttctaag gataaacatc 480
tcttccaagg ggatggagag tgggtccctc aacaaagtcc ctgtccagtc acctttccat 540
cagggcacta gccanggaat gactcctcac actttcacct ttactgattt ccagaggaaa 600
gctagaggat ctagttcaag aggcaagaag atctggccct caattagcta aatgtagayg 660
ctgcctaaca gttccctcct caaaggccac cttggtgctg tgggggcccc ttgcctcttc 720
ccttcccact ggtgcattac aaaacagtgt tcttttgaaa tgttcatcag gaataggctt 780
ttttaaaaaa tgttgtgtat ctgtatatag tattgtgatg tctgaatgac aatgtactga 840
atgcaaaaag gaaaaaaacc cacaaacatg tttttaaaat aaaatatctt tttttgcctt 900
gaaaaaaaaa aa 912

<210> 1030
<211> 765
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(765)
<223> n = A,T,C or G

<400> 1030
ggaagggaag gcaggacatg ggccgggccc tggcccagga cggcccaaat ccaaaaacct 60
tcagcccaag atccaggaat atgaattcac tgatgaccct atcgacgtgc cacggatccc 120
caaaaatgat gcccccaaca ggttctgggc ttcagtggag ccctactgtg ctgacatcac 180
cagcgaggag gtccgcacac ttgaggagtt actgaagccc ccagaagatg aggctgagca 240
ttacaagatc ccacccctgg ggaagcacta ctcccagcgc tgggcccagg aggacctgct 300
ggaggagcag aaggatgggg cccgggcagc ggctgtggct gacaagaaga aaggcctcat 360
ggggcactga ccgaactgga cactaaagat gtggatgccc tgctgaagaa gtctgaggcc 420
cagcatgaac agccggaaga tggatgcccc tttggtgccc tgacgcagcg cctcctgcag 480
gccctggtgg aggaaaatat tatttcccct atggaggatt ctcctattcc tgacatgtct 540
gggaaagaat caggggctga cggggcaagc acctcccctc gcaatcagaa caagcccttc 600
agtgtgccgc atactaagtc cctggagagc cgcatcaagg atggagctaa ttgcccaggg 660
cctttttgga gtctgaggac cgccccgcag aggactccga ggatgagggt ccttgcttga 720
gctttcngca aacgggcaag gctnaagctg gaaggcactt tagtt 765

<210> 1031
<211> 1033
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(1033)
<223> n = A,T,C or G

<400> 1031
ccttnnnnnn nnntttggna ctctanaata caagctactt gttctttttg caggatccca 60
tcgattcgtt cagcctagca gccatgatgc cctcggaacc tggccctatg gtatggatgt 120
gaggactacg cactggctgc cctgagcccg gggctggaaa tcatctttgg ctgccaagga 180
tctggaccta ttttggagtg gagagtcatg gttaaaattc ccagcccggc ccaggtacgg 240
gaatcccagc attttgtgag gccgaggcag ggggatcacc tgaggtcagg agtctctact 300
aaaaatacaa aaattagaca ggyrygswgg tgggcgccac tcaggaggct gaggcaggag 360
aatcacttga acccgggagg cagaggttgc agtgagccag atcatgctgc tgcactccag 420
cccggccgct caccgtgtgt gttgctgggt gctggggctg tgacttatcc cctctccttt 480
agccttgcca taagtgtagt atcctatgag gctgagattg ggaaaggtta catgcaggta 540
agccagtgga cgtggccgat gcttcaggct ccttccagcc aggtccagca gtgttaccat 600
ctgcttctcc tgggaggaca aaccaggcac ccccaccatg aaggggctgc aggcaccatg 660
aactatgtta acaaccccag tctgtactac agaaarggct gcagccacat gagaattcag 720
tccacacaag ccccatggcc gtgttcccca cttcagccac ngrgctcagg gagccmatct 780
ggcgctaagg ggaactgctg gggtgtgggt gacacctgcc tttggcgttc tgccttgggg 840
aggtttctgg ttttgttacg gggtggaaga ataggacctg ggggtctcgg atgcaacctg 900
cagaccccgt ggctcaccca accccaggtt ctgcctccca gaccagaanc ggcatggcct 960
ggtccntctn cgaggtgcct gctctgtaaa tatcaaggga ttacaacttt aataataaag 1020
cagaacttga aaa 1033

<210> 1032
<211> 517
<212> DNA
<213> Homo sapiens

<220>

<221> misc_feature
<222> (1)...(517)
<223> n = A,T,C or G

<400> 1032
aattcggcac gagacagctt tagaaataga taatgcggtt gtggcaaata gcctaattga 60
catgagaggc atagagacag tgctactaat caaaaataat tctgtagctc gtgcagtaat 120
gcagtcccaa aagccaccca aaaattgtag agaagctttt actgctgatg gtgatcaagt 180
ttttgcagga cgttattatt catctgaaaa tacaagacct aagttcctaa gcagagatgt 240
ggattctgaa ataagtgact tggagaatga ggttgaaaat aagacggccc agatattaaa 300
tcttcagcaa catttatctr cccttgaaaa agatattaaa cacaatgagg aacttcttaa 360
aaggtgccaa ctacattatw aagaactaaa gatgaaaata agaaaaaata tttctgaaat 420
tcgggaactt gagaacatag aagaacacca gtctgtagat attgcaactt tggaagatga 480
agctcaggaa aataaaagcc aaatgnaaat ggttgag 517

<210> 1033
<211> 968
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(968)
<223> n = A,T,C or G

<400> 1033
gagactttca attttggaag caaactgagc tattcttacc agccaaagtt atactaaata 60
agagacttgg gggagcaaat gtttttcagc cttcagaaat gaaagttaag gattttagca 120
ctaggtaaaa ttcagtataa taggctgaag tggagtaagt gaaaacctgc cttttgccac 180
tcttaaaaat tgtgcccaaa atataaaagt gtggaacttt agaacttgga ataattttat 240
tgcagtcttc cattacatgg aaatagcata tctaatatct aggttacttg agagaccagc 300
taatcatctc tgttgcacat gtttaattgg caaaaagcaa ttcatgataa ataaaattac 360
tgctttccat ctactgggta aaatgactat tgaaataagt atgaatgtgg tcagaggatt 420
atagttgaga gtgaagtact atgtgtgagt tatagatctc tcgaattata tttatagatg 480
cagtgtcctg cccagttttg tttgcctcct acattttact gtaaaatatt tattgtcttc 540
tagccttgag cctctgaggg tcagtaagtg aagtacagat agcaaaattt tactaccycg 600
ttaacccttt tcttaaaata ttctctatct tnctatgtct ctytctgaca tagtaatccc 660
aaaggattgt gttactcccc gtgaaagtta ttacttttcc tttaaaaatg gttttataat 720
aagactgttt aaaacctttc cagtattggt acatcttggc ttctggccca aaccccaagc 780
agaaaagaaa atggaataat ggagcattgt ttttccacat tagtattagg gcatcagatt 840
cttagtgaaa cactataatt aagtagttat aattaaataa ctgttcttca tactnaggac 900
tcttaataca tttctttaag acttgtaagt ntaattgtaa agcttgttaa ctgttttata 960
tactaaag 968

<210> 1034
<211> 841
<212> DNA
<213> Homo sapiens

<400> 1034
ggatgaggcg ctgcagtctc tgcgctttcg acgccgcccg ggggcccagg cggctgatgc 60
gtgtgggcct cgcgctgatc ttggtgggcc acgtgaacct gctgctgggg gccgtgctgc 120
atggcaccgt cctgcggcac gtggccaatc cccgcggcgc tgtcacgccg gagtacaccg 180
tagccaatgt catctctgtc ggctcggggc tgctgagcgt ttccgtggga cttgtggccc 240
tcctggcgtc caggaacctt cttcgccctc cactgcactg ggtcctgctg gcactagctc 300
tggtgaacct gctcttgtcc gttgcctgct ccctgggcct ccttcttgct gtgtcactca 360

ctgtggccca acggtggccg ccgccttatt gctgactgcc accccaggac tgctggatcc 420
tctggtacca ctggatgagg ggccgggaca tactgactgc ccctttgacc ccacaagaat 480
ctatgataca gccttggctc tctggatccc ttctttgctc atgtctgcag gggaggctgc 540
tctatctggt tactgctgtg tggctgcact cactctacgt ggagttgggc cctgcaggaa 600
ggacggactt caggggcagc tagaggaaat gacagagctt gaatctccta aatgtaaaag 660
gcaggaaaat gagcagctac tggatcaaaa tcaagaaatc cgggcatcac agagaagttg 720
ggtttaggac aggtgctgtt ccgagactca gtcctaaagg gttttttttc ccactaagca 780
aggggccctg acctcgggat gagataacaa attgtaataa agtaacttct cttttcttct 840
a 841

<210> 1035
<211> 662
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(662)
<223> n = A,T,C or G

<400> 1035
ctgtttttcc cagcccgtta ctcctgtagc tctgaatgga aacagcagct cacatgtcac 60
ctctgtgtga cggactcggc cccacccaga cacacaggtg tggttgtcag cgagcacctc 120
aggagaactg agaagctctt tttcaccatt ctttccccaa atcagtcaaa acctttttaaa 180
aaccattatg agttgtgaga aggtttcaac agctatgttt tcaaagtgtg tgtatatgat 240
ggcactgtgg tcagttcacc aagagcagca ctgagatggg tggatccagg tgcaccttga 300
aaagttaatt gcacaaacct ttgctttgac cccaaatacg cttgctagtg cccttccctg 360
cagcttccca gacaatcarc agggtccatg gggcagggc ykggcacagc aatgccctgc 420
ttcctgtctg catccataag aggcccctcc acaccgaggc tgctttaggt tagccaacca 480
ggtgcagggg aggccccatg caggtgccat tataccaaca gtgaggcaag aaatcagana 540
aaagagggat tgcctttatt gtttgaggaa ntgaccagag attgttgttg gggccagtgt 600
tcattaggga ggggagaaac aggttgatgn caggttcggg gatgagggcc cttcccaggg 660
tt 662

<210> 1036
<211> 724
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(724)
<223> n = A,T,C or G

<400> 1036
ttggttncta tacacaagct cttgttcttt ttgcaggatc ccatcgattc gaaaaagctt 60
ttagtgggaa atcagatctt attagccacc agagaactca cactggggaa aggccctaca 120
aatgtaataa gtgtgagaaa agttaccgac accgttcagc cttcattgta cataaaagag 180
ttcatactgg ggagaagccc tataagtgtg gtgcctgtga aaaatgcttt ggccagaaat 240
cagaccttat cgtgcaccag agagtccaca caggtgagaa gccgtataaa tgcctggaat 300
gtatgagaag ttttactcgg agtgccaacc taattaggca ccaggcaact cacactcaca 360
cttttaaatg ccttgaatat gaaaaagct ttaactgtag ctcagatctt attgtacatc 420
agagaattca catggaagag aaaccacatc agtgkctgcg tgtgagagtg gcttcctcct 480
aggaatggac tttgttgccc aacagaaaat gagaactcaa acagaggagc tacacttata 540
aatacactgt atgtgataaa agcttccacc agagttcagc ccttcttcaa catcagacag 600
tacacattgg tgaaaaaccg tttgtctgta atgtgagtga aaaaggtctt gagcttagcc 660

ctccccatgc gtcagaagcc tcacagatgt cttgaccagg cgangaagct gtaataccaa 720
tatt 724

<210> 1037
<211> 385
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(385)
<223> n = A,T,C or G

<400> 1037
ctgcgaagat ggccgctgcg tcctcatcgg attccgacgc ctgcggagct gagagcaatg 60
aggccaattc gaagtggttg gatgcgcact acgacccaat ggccaatatc cacacctttt 120
ctgcctgcct agcgctggca gatttacatg gggatgggga atacaagtgt ctctctagaa 180
gtgcctggtg tggaagaaat gtttgctgaa tgaataataa aaacatcaac tgccacttat 240
tcctcagtag cacttacagg ttctgtaact cattatctca cttgattttc accacatacc 300
atgaaagtat caccattctg caagcgggaa acctgagatt cagaaagntg gtggtagggg 360
accttggccc tggtgggcag caagc 385

<210> 1038
<211> 393
<212> DNA
<213> Homo sapiens

<400> 1038
gcggcttcct tccggctctg cgctcctggc tggggctgct gggcggctgg ggccgggtcc 60
ccgcacccgg ctctcaagtc cgggattacc cgcagggcct gagaagcgct ttgcccccta 120
cagcctctcg agccagccct tggctcggaa ttggagaatg gtcctcattc ttacccagat 180
ctcacacgcc gtccccgctc ccgatcccag gggtgacag gcgcgcacgc ctttcaaaca 240
cgtgttaaaa tccaagacgt cgtctcaaat gccagagatt tgcgggaatg ctcctggaag 300
gcctcaaaat cgccgcaaga acagtccact ttggaaagtg aagaatggaa tccttgggaa 360
ggagatgaaa aaaatgagca acaacacaga ttt 393

<210> 1039
<211> 900
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(900)
<223> n = A,T,C or G

<400> 1039
gagatgatgg ctgatgaaga ggaagaagtc aagccgatct tgcagaaatt gcaggaactc 60
gtggatcagc tctactcatt tcgagactgc tatttcgaga cacatagtgt tgaggatgca 120
tgggaggaag caacaggatg tgcggaagga gatggagaaa accctacagc agatggaaga 180
agtagtgggt tctgtccagg gcaaggcaca agttctaatg ctaactggga aagcactaaa 240
tgtgactcct gactatagcc ctaaggctga ggagcttctg tcaaaggctg tgaagctgga 300
gcccgagctg gtggaagcct ggaaccagct gggtgaggtg tactggaaaa aaggggatgt 360
tgcagctgcc cacacctgct tctcaggagc cctcacccat tgcaggaaca aagtctcctt 420
gcaaaacctg tcaatggtgc ttcgtcagct gcggactgac actgaagatg aacattctca 480
ccatgtcatg gacagtgtcg acagctaagt tggctgttca gatggatgtc catgatggcc 540

gctcctggta tattcttggg aattcatatc tttccctttta cttctctact ggccagaacc 600
ctaagatctc ccagcaagcc ctcagtgcct atgcccaagc agagaaagtt gacagaaaag 660
cgtctagcaa tcctgacctt catctgaaca gggcgacgtt gcataaatat gaagagagtt 720
atggggaggc cctgggaggn tttctctcgg gctgcagctg nggaccctgc ctgggccaga 780
gccccggcaa cgagagcaac aacttctggg attcctggga tagattaacc agcctccttg 840
agagtaaggg gaaaggtgaa gaccaaaaag ctgcagagct gntggggaag tttgcgccna 900

<210> 1040
<211> 379
<212> DNA
<213> Homo sapiens

<400> 1040
ccagtcagcg gggtggtctc ctgggtcccc agcctcgcca ttctgtgggg ggtggtgact 60
gggcgaactc tcagatgcct cagcaccctc ccaccccttc ctcaggcaga acgagatctt 120
gtggcgggag gtggtgacac ttcggcagag ccacggcggg gccgagcaat gcaggaggca 180
agagaaagct gtccctgatg ctggatgagg ggagctcatg cccaacacct gccaagttca 240
acacctgccc tctacctggt gcccttctgc aggaccccta cttcatccag tcgccctcac 300
agggccaggg gccccatcat ctctgacatc ccagaagact ctccatcccc tgaggggacc 360
aggctttctc cctccagtg 379

<210> 1041
<211> 389
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(389)
<223> n = A,T,C or G

<400> 1041
ccagtcagcg gggtggtctc ctgggtcccc agcctcgcca ttctgtgggg ggtggtgact 60
gggcgaactc tcagatgcct cagcaccctc ccaccccttc ctcaggcaga acgagatctt 120
gtggcgggag gtggtgacac ttcggcagag ccacggcggg gccgagcaat gcaggaggca 180
agagaaagct gtccctgatg ctggatgagg ggagctcatg cccaacacct gccaagttca 240
acacctgccc tctacctggt gcccttctgc aggaccccta cttcatccag tcgccctcac 300
agggccaggg gccccatcat ctctgacatc ccagaagact ctccatcccc tgaggggacc 360
aggctttctc cctncagtga tggcaggaa 389

<210> 1042
<211> 1220
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(1220)
<223> n = A,T,C or G

<400> 1042
gtgggacgcg ccgagccgga ggctgcagga tgatgcggtt catgctatta ttcagccggc 60
agggaaaact gcggctgcaa aaatggtacc tggccacttc ggacaaggaa cggaagaaga 120
tggtgcgcga gctcatgcag gttgtcctgg ctcgaaagcc caagatgtgc agcttcctgg 180
agtggaggga yctcaaagtt gtctataaga gatatgccag cctctacttc tgctgcgcca 240
tcgagggcca agacaatgag ctcatcacac tggagctgat ccaccgatac gtggagctct 300

tagacaaata ctttggcagt gtgtgcgagc tggacatcat cttcaacttt gagaaggcct 360
acttcatcct ggatgagttt ttgatggggg gggatgtcca ggacacctcc aagaagagtg 420
tgctgaaasc atcgagcagg ctgacctact gcaagaggag gatgagtcgc cacggagttg 480
ctggaggaga tgggtttggc atagccctgc tggccggggt gtggcgatgg ggtcctggca 540
gcgtggcggg aacggctgct tctcctctgc ccagggccct gttcttggtg ggactcggct 600
gcccctcctc tgctgcctca cctttcggag tgagctgtgg gctcaggccc ttcaaacatt 660
ccctccctcc accccctacc tccactttcc ccttttccca ctgaaggttt tagaagctag 720
gaggcaggaa aatgtgaccc agatgggggt gctatttggc ttttattccc tgcctttgca 780
gaactgatgt caccycagat gtccttccct ccctaataac tgtaaatata taaatatgtc 840
aggttaaagg gaaaaggtgt tcagggcact tcttgtcctc tctgtcccat aacctanctc 900
cacctccacc ctccccctag ccagccangc agcttctctg cctgggaggg gagcctggac 960
ccccctcttt ctccttggct gcagtggggc ctttatccag tgccagggag gaacaacata 1020
gttaattttt ttctaacctt gccactttga gggaaggaag ggttggggga agggcaagct 1080
ttatgggacc ctggtcctgc cctggccttt cactccagtt ctgggtgagg caggagctgg 1140
gaggggtgnn gangsgggag ggggaagtgt ctgcctttat gtcctttctt ctgaaataaa 1200
aggaaaagca tttctggaaa 1220

<210> 1043
<211> 410
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(410)
<223> n = A,T,C or G

<400> 1043
gtctttccct ctctcctgtg tttgcctctc tgtcctgccc ctgcgcaccc ctccctgtgc 60
ccaccctgtt tctgtcgcct gcggctcttg gggtgctcc attctcccgc cttcccttct 120
cctgcacctg gtcctgcctg ctttctcgct gtctgcccca ggaggtaggt acacgacctg 180
tttttgtctc ccatcactag acgaggggag ggggctgccc tggcgccctg gcgccctggc 240
ctcctgccca caggaggagg gggctggggg ctcaggctcc tgggctggga ctgacagact 300
cagaaaatgt ggagccccaa gctgggggtg gacgattctg gaccccaaca tgcctggcct 360
gcttgtctgt ctccccaacg caacggcttt gtctaagccc caagancccc 410

<210> 1044
<211> 591
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(591)
<223> n = A,T,C or G

<400> 1044
atcagaagag gtcagttaaa tattcaccca ggccctgggg gctctcttac agctgttctg 60
gcagatattg aagtaatatg gtctcatgcg atacaaaaat acttggaaat cccactgaaa 120
gatttaaagt attatagatg tatcttgtta attcctgata tctataataa gcagcatgtg 180
aaagaactag tgaatatgat actaatgaag atgggttttt cagggattgt ggtccatcag 240
gagtctgtgt gtgccaccta tggaagtggc ttaagcagca cgtgtattgt agacgttggg 300
gaccagaaga caagtgtatg ctgtgtggag gatggggtgt ctcatcggaa tactcggctt 360
tgtctggcat acggaggatc tgatgtgtca agatgttttt actggctaat gcagcgagcn 420
tgggttccct tacagagaat gccagttaac aaataaaatg gattgtcttc ttctgcaaca 480
ccttaaagaa actttttgtc atttagatca aggacatctc tgggcttcag gaccatgagt 540

ttcagattcc gacatcctga ttctcctgcc ctgctttacc agtttccgaa a 591

<210> 1045
<211> 400
<212> DNA
<213> Homo sapiens

<400> 1045
attcaagacg caagagagcc tggtgtgtga agcgttggca gtagttcagc ctggctagag 60
agtacaaggg gagaggggat gtactgggaa tggtaaacag aggccagata ataaagggyc 120
tgycttctct gtctcaarga taggaacctc ctccyctgaa tgtattaata agtagtgaac 180
ccccctwttt twagtagagg gccagcgatg tccatccgta ttggccgttt ccagaaagtt 240
tgccttaggc tgtgatgtgg aaaatggatt tggggagagc aaaactaaag tcaggaaact 300
gctaagataa tccaattcag tggattcagt aatatttaaa tattgcattc aaatattcag 360
tgagtatctt ctgtatgcca gacacttttc taggccctgg 400

<210> 1046
<211> 645
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(645)
<223> n = A,T,C or G

<400> 1046
gaaaaaaaaa nttttgaaac ccctttggna cncnttaata caagctactt ggtctttttg 60
caggatccca tcgattcgca acaaatcatc ctggagctag cattgcactc tcgagaccct 120
ctcttaataa ggacttccgg gatcacgctg agcagcagca tattgcagcc caacagaagg 180
cagctttgca gcatgctcat gcacattcat ctggatactt catcactcaa gactctgcat 240
ttgggaacct tattcttcct gttttacctc gccttgaccc agaatgaaga aaacatttgc 300
gatggaaaag tgactttgta atatcaaatg ccaaagctac tatcattcag tgctacatga 360
actgtgactt taagaatttt ggtgaacttt gatatttttt gtttgtctga aagaaaggaa 420
tgtgtaagtg aaagctgaaa gaagaataac caggatgatg agagctgtgg aagctgtatc 480
gtccaaggaa ttgattatgt accgtgactg taactttttt gtaatgctgt ttaactctca 540
atcagactgt gaactggatg gtcacggaag tcattcccca actcctagca agtttgactg 600
gaatatatnc atgtccacag tagantttc aaggaattca tttga 645

<210> 1047
<211> 418
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(418)
<223> n = A,T,C or G

<400> 1047
gggggacggg tcgggacacc agtgaaactt gaaccgggaa gtgggaggac gtagagcaga 60
gaagagaaca tttttaaaag gaagggatta aagagggtgg gaaatctatg gtttttattt 120
taaaaaagaa aaaggaaaaa aaaaaagtca ntancaaaaa ncccagctca anaacccntt 180
ntacnccaaa ctggaangga naananagca ccaggaanat tccanaancg gggggcccca 240
gtttttgaaa aactttatga acttttcaaa nattattttc ntatggcanc aagtgatacg 300
gaaaactgct gtcagggacn cctgatntgg aaatcaaata natttttant taattganca 360

taanatttag ggatttttcc ananctcgaa agggtcaaca gccctccana atgtcggc 418

<210> 1048
<211> 820
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(820)
<223> n = A,T,C or G

<400> 1048
tctagaatac aagctacttg ttctttttgc aggatcccat cgattcgcac atttcaagtg 60
cttaacagcc tcatgtggct agtgactgct gtattggacg gtacagatat ggaacatttt 120
catcatcgaa gaaagtccta ttggacaaca cttctataaa aagtttgaga gcaggaattc 180
tcatttccat tcgtctgtag cttctatccc caaaggcaaa gaaactaaaa gagaaatgac 240
tcattgaaga ttggcctctt tcctttctct aagacaaacc taagtaaaag cctgagcttt 300
gagtcctatg ctcagcacac gggaaggaga tgttaataat taaaataaag ttgatatcct 360
gtctttaggg agttcccttg atctcttgaa agagacacag ccccatttac attatttcgt 420
ggatttcacc agcataagta tarktttttt ctgtaagtcc ctcattctta tgtaataaca 480
ggtggaactg aggtttgaag aacctcagtg gcccatcctg atgacattgg agactcaaag 540
agacaagaga gagtagggtt taaaacctga gctttaagac tcccactagc ttcgtgtcct 600
ttggcatgtt aacgtgcctc agtttcctca tctgtataat ggggatatat gaaaggcacc 660
agtcctaagg tgaacattaa gtgagatgat tctagttaca gacttaggaa caatttccag 720
cacatagttn aatatccggg ggattctggg tactgttatg tgtggggtga gctgacctgg 780
gatgttggnt gtttttcctc tcttcttngc tggacccctc 820

<210> 1049
<211> 600
<212> DNA
<213> Homo sapiens

<400> 1049
gaccacctga ttgcctcctc gtgctagacc ttgaaccaga ggcactccgc taagctttct 60
gacccacaga aactatgaga tcataaatgg attgttttaa gccactaaag atttgaagta 120
atttgtcatg cagcataggt aactaataca gtagtgtact tatttgccaa agtaataatt 180
tttaaaggaa tacagcaaaa tataagactc catcataatc tggcatgcaa tamwaaattc 240
gcgrcyrgwc gamtgaagaa gcaggaaaat gtcacctata accaggggaa aaatcagtca 300
atagatgcag acctagaacg gatagaaatg ataggattag catgcagcaa tgtaaatatg 360
atctctgctt aaagtatgtg aagggaagca tgcmcagatg aagaragaar tgaaagatat 420
gaaaaagaat agaggaggcc aggtatggtg actcacgcct gtaatcccag cactttggga 480
ggccgaggca ggtggatcac ctgaggtcag gagttcgaga ccagcctggc cagcatgcga 540
acgccatctc tactaaaact acaaaaaaat tggccaggca cggtggtgtg tgcctgtagt 600

<210> 1050
<211> 694
<212> DNA
<213> Homo sapiens

<400> 1050
agaaatatag taaacataaa tttgcaacaa ttttaaagct ccagttttta ggtgactcaa 60
agaaagtcat tatgcctatt aatagttatt tgatgccatc accaaaagtc tatgtgaaaa 120
tctcctaaag tcaaaacccc tgcctttggt tttacagacg gttattacca ttgggtggag 180
ctgcaaggtc aaatttctcc taagttcccc tatttagagg aaaagtcact ggttattgta 240
ataaaccacc catggttctt tatgtacatt ttgataacac attattatag cttsatttta 300

atttttttgca ttaatttttg aaatccacat acatctcatt tgtttaaatt aaggccatgc 360
acaaatattt tttttagttc agtgctgacc attaaaaact atcatgcttg atacggtgca 420
aaagttaaaa tgagtatcac taaaaatgcc ttctttttat gtggtgcaat atgaaataca 480
ccaagactgt gtcttgacat tctgatggac ccaggtaaag ttgttaaaag aacgaataaa 540
actttattaa aataatttag acacctgtgt accagcaaca attgatttaa tagacctata 600
gtgtctatac tatcccttag aataaaggtt tatgattttc ctgatactaa gatgcagtca 660
cataatcttt tgtgcatatt cctatacaaa ttat 694

<210> 1051
<211> 672
<212> DNA
<213> Homo sapiens

<400> 1051
gaaaaatgag taggagatga ctgagagctt aaagtttggg agtgtcaatt aactcagcat 60
tcttttaaaa aacgtgtcat atattacagc atttcctttt atttgaagtg agtaaatgta 120
tctttttaaa ttccttagta atttttgagc actccatatg tataaagcat gtgaatattt 180
ggtagcattt tacaaatktc cagagatttk tgagarttcc tgagatcttc ataggggscc 240
cacaaagttt agtattactt ttcacggtaa ttactaaagt gtattttgcc tctttttact 300
ttttctctta atagcataca gtggtaactg aaggctaata gtatgtgtgk ttatgtgctt 360
taaaaagttc gtggtyttgg ccaggcgcag tggctcagac ctgtaatccc agcactttgg 420
gaggctgagg caggtggatc acctgaggtc aggagttcaa gaccaaaacc agcctggcca 480
acatggtgaa accccatctc tactaaaaat acaaaaatta gccaggcatg gtagtgggtg 540
cctgtagtct cagctactcg agatgctgag gcaggagaat cacttgaagc tgggaggtgg 600
aggttgcagt gagccaaaat ctcgccatta cactccagcc tgggggacaa gagcaagact 660
ccatctcaaa aa 672

<210> 1052
<211> 396
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(396)
<223> n = A,T,C or G

<400> 1052
gcgaggaaga aatggaggat gagcaagaaa gcgaggccga agaagacaac caagaagaag 60
gggaatccga ggcggaggga gaaactgagg cagaaagtga atttgaccca gaaatagaaa 120
tggaagcaga gagagtggcc aagaggaagt gtccggacca tgggcttgat ttgagtacct 180
attgccagga agataggcag ctcatctgtg tcctgtgtcc agtcattggg gctcaccagg 240
gccaccaact ctccacccta gacgaagcct ttgaagaatt aagaagcaaa gactcaggtg 300
gactgaaggc cgctatgatc gaattggtgg aaaggttgaa gttcaagagc tcagacccta 360
nagtaactcg ggaccaaatg aagatgttta tacagg 396

<210> 1053
<211> 782
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(782)
<223> n = A,T,C or G

<400> 1053
actccttnna caagccactt gctctctntg cnggatccca tcgnntcnaa ttcggcacga 60
ggtgacatgc tgtattggct actccataaa gtaggagtat agatggaatg gagaaagaag 120
caacctctga gattccagtg gkgyrygrgg gcaagatctg atggaaactg amaaagagaa 180
cgaagactam acaaagagaa aggaaagaga agaaacccta aatgggcaaa ggaaagcaca 240
tcctgtttgc ggagctttga aatattggaa ccatttctaa ttgctcctgt ttttctgggt 300
aacaccagtt ttctgtagtt gccactaaag cagtagactc ttgagtctca cttgtctctg 360
agagagacag aagttagaaa gttttgactt ggcgattccg aaagtatgcc tttgttggca 420
cttaaatgtc cagtgagact tcttggcacc ttagagccct ctgagatact grttatttta 480
ggttcttctc cctactttca gatgttttca gcccaacact gggtgctctc ttccactaca 540
gagaatcctg aagaaaaggg aaggtgtttc ccatgatggt gaatgtcact gccatgaatt 600
cctgaatcta cctgctgctg ggagtcagag tccaagcata acccgtgtag cataaaagca 660
gcgctgtagc cctattccag tctttttcgt taatgtccag agtgaacaac aagagttagt 720
caatcattaa ctgttgactg ttgattctca taataaatgc agcataacga caaaaaaaaa 780
aa 782

<210> 1054
<211> 688
<212> DNA
<213> Homo sapiens

<400> 1054
aattcggcac gaggtggaat cagctgtgaa tgcagaaaga ggaggtgctg atcggattga 60
attatgttct ggtttatcag aggggggaac tacacccagc atgggtgtcc ttcaagtagt 120
gaagcagagt gttcagatcc cagtttttgt gatgattcgg ccacggggag gtgatttttt 180
gtattcagat cgtgaaattg aggtgatgaa ggctgacatt cgtcttgcca agctttatgg 240
tgctgaatgg tttggttttt ggggcattga ctgaagatgg acacattgac aaagagctgt 300
gtatgtccct tatggctatt tgccgccctc tgccagtcac tttccaccga gcctttgaca 360
tggttcatga tccaatggca gctctggaga ccctcttaac cttgggattt gaacgcgtgt 420
tgaccagtgg atgtgacagt tcagcattag aagggctacc cctaataaag cgactcattg 480
agcaggcaaa aggcaggatt gtggtaatgc cagggaggtg gtataacaga cagaaatcta 540
caaaggrtcc ttgagggttc aggtgctaca gaattccact tgttctgctc ggtctactag 600
gagactcsgg gaattgaagt ttycgaaatt catcttgttt gccmtgggga gccycacttt 660
tctttgctyc aggaatwttc cccttatt 688

<210> 1055
<211> 457
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(457)
<223> n = A,T,C or G

<400> 1055
gagagacttc ttcctgcatc cttacatggt ggaagacaaa agagtggcag agaatgaata 60
tactcccagt ccattcgaga gggaagagcc ctcacctcat cacttccctg aggcctcacc 120
ttctaatact atcaccttgg tgataagatt tcaacatagg aattagaggg gaatacatac 180
atccagacta ttgcagatgg gattatgtaa tactttgttc ctgtttggct tatttcttag 240
cacaatatct ttctggtatg tgcatgtttc tgcaaatggc aagattttct tcctttttaa 300
ggctgagtaa taattcattg catgtataga ccacattttc tttatgcatt cattattagt 360
gagagttctt attacaaatg ggcgaagtgg tttttaatat tgatttaatt tttgttatta 420
aaaacgtttt tngagtggtt nggttccttt tttngga 457

<210> 1056

<211> 664
<212> DNA
<213> Homo sapiens

<400> 1056
tttagtaata agactttcag tattttttaat gttgacattt ccagatgttt catttagtat 60
ccaggggtct gtctggagac ttctagagag ggacagctca gaagtgagac ccttgagctc 120
tggtgctgta agcttgtgca attaagttga acagagcctg ggaatttctt tcctctgcac 180
agtcccttga tatttggaat ccaggttctg cccccaaccc ctacccaccc agtggtctgt 240
taagatgtct cagatggggc tgggcttggt ggctcatgcc tgtactctca acactttggg 300
aagcaaaggc aggcagatca caaggtcagg agttcagcct aaccaacatg gtgaaaccgt 360
gtctctacta aaaatacaaa aattagccag gcgtggtggt gcacacctgt aatcccagca 420
ctttgggagg ccgaggcaga cgggtcactt gaggccagga gttcgagacc agcctgggca 480
atactggcgg actccgtctc tactacaaat acaaaagtta gcctggcatg gtggcgcatg 540
cctgtaatct cagttactca ggaggctgag gcaggagcat cacttcaacc caggaggcag 600
aagctgcagt cagccgaggt ggcaccactg cacttcagcc tgggcaagac tggagactgc 660
ctca 664

<210> 1057
<211> 443
<212> DNA
<213> Homo sapiens

<400> 1057
gtaccttcaa aaggacacaa tgtaacaggg ttagggaaac agaagtccgc agggcctccc 60
taatgtcttt ggagcttaaa ccccttgtat atttgcccct tttcaataaa cgccccacgc 120
tgatagcaca gaggagcccg gcatgcactg tatgggaaag cagtccacct tgttacagtt 180
ttaaatttct tgctatctta gcattcagat accaatggct tgctaaaaga aaaaaagaaa 240
tgtaatgtct ttttattctc aggtcaatcg ctcacacttt gttttcagaa tcattgkttt 300
atatattatt gttttttcag tttttttttt ttttttttgtt ccagaaagat tttttgtttt 360
gttaacttaa aaatgggcag aaagtattca agaaaaacaa tgtgaactgc tttagctttc 420
tggggatttt taaggatagc ttt 443

<210> 1058
<211> 607
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(607)
<223> n = A,T,C or G

<400> 1058
gagctatggc ggctttggct cgcaggatcc tcagtaaacc tattgaagta caagttggag 60
gcaggagtgt ggtttgctca gatgtggagc aacaagtgat tgtgattgaa gaagaaaaga 120
aattcttgaa gttacttgag cttctaggcc attatcaaga gtcaggatct gtcattatat 180
ttgtggataa gcaggaacat gctgatggtc ttcttaagga tttaatgaga gcatcttatc 240
cttgcatgtc tcttcatgga ggcattgatc aatatgacag agatagcatc ataaatgact 300
ttaagaatgg gacctgcaaa cttcttgtgg ctacctctgt tgctgcccga ggtctagatg 360
tgaaacatct gattcttgta gtaaattata gctkscccaa ccattatgag gattatgtac 420
acagagcagg gcggactgga agagcaggaa acaagggtta tgcttatact tttatcacag 480
aggatcaagc tcgctatgct ggtgacataa ttaargctct tgaattgtca gggrctgcag 540
tacctcctga tttagagaaa ctgtggngtg atttcaaagt tccagcagaa agcttagggg 600
gaaataa 607

<210> 1059
<211> 1139
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(1139)
<223> n = A,T,C or G

<400> 1059
gtgaatcatt acctagcatt tcagtttttt gcagaagaat attatccctt ctcagaggtc 60
ctggcctatt tcactttctg cctgtggata attccgtttg cgttttttgt gtcactttcg 120
gccggggaga acgtcctgcc ctctaccatg cagccaggag atgatgtcgt ctccaattat 180
ttcaccaaag gcaagcgggg caaacgctta gggatcctgg ttgtyttctc cttcatcaaa 240
gaggccattc tacccagtcg tcagaagata tactgacccc catgcaggca ggatgtgggg 300
ggcaagatca ggagagtcag gcccctgggc ctctatgcca ggtggggacc agaagtcggg 360
aaggcaccta ccacctgccc tggctttttt cccctcaact ctggagcccc atccccaccc 420
tccttggggg gctcagcttg gctcagatct gatgcttcaa gaggctgtaa cctcagaggg 480
caccaaggag ggtggcagag cctgyttagc caggaggccg aggtccctca gtcctcccct 540
gtcccttcca aggtgggtca ggaggttctg gccccgctgg ggcaggcagg gcagggtctg 600
tnaagcttaa gagcagatgg tgacaagttc tctgggcagg tggccatggg gaggggccat 660
ggcttggcat gtccaacaga aatagttttt nctgttgaac ggtgatttct gtccaagtgc 720
agatttccgt ttgaataaag cttcgcttct aggtggcact gtttgcctta ataccctgac 780
agttcatctt cctttcttcc tgctaacctt ctgctctgga ctggactcac ttttctgctc 840
cagggactcc ttttctgggt ttgggtcttg cccttcccaa gggactgttc ttgtggccct 900
taatgggaag ggggcagggg tgaggagctg agcctgctca aggagtggga agtggggcta 960
taggcagcct ctctgatgca ctctcttcca tctctttccc caaggctccg tgactgtcaa 1020
actgggagta ggagagggga caatttagga ctgggctaga ttttcagaag aacatctaca 1080
atatcctatt tataaatctt cctctgggaa aaggagtggt ttctggctga atactatct 1139

<210> 1060
<211> 419
<212> DNA
<213> Homo sapiens

<400> 1060
attccagata aagggagtag ccagtgtaaa ggtcttaagt taggaacaag cttggtatat 60
taaagaataa gcaaggaagc cagtgtggtt gaggagagag caacagaaga tgaggtcgag 120
taagtaatat tggtgccttg taggctctaa ttaggaattg ggcggctgga agtggtggtt 180
caggcctgta atcccagcac ttctgggagg ccgaggtggg cggwtcacga ggtcaagagt 240
tcgagaccag cctgaccaac atagtgaaac gccatctcta ctaaaaatac aaaaattaac 300
tgggcatagt ggtgcgtgcc tgtaatccca gctacttggg aggctggggc aggagaatcg 360
cttgaaccca ggaggcagat gctgcagtga gccgagawta caccactgca ttccagcct 419

<210> 1061
<211> 745
<212> DNA
<213> Homo sapiens

<400> 1061
gagagaggcg ggactgggtc aagtgggtgg agctcctcct tgcatgactg caactgtcgg 60
ggctttccgc cggctcacag cagttggggc cagcggggag aagagaggcg gaactgctgt 120
gtcctcatgt ggcgcagcct caaamtggca tycargcact gggcccgtgc agagaaggca 180
cctgcagaga gcagggcagc ccgkcgcagg ggcatgcgcc tagawyccca gctactcgra 240
aggccaaggc aggaggaccg cttgagtcca gggattcaag gccaacctgg gcaatagagc 300

gagaccctgt ctcttaaaaa acgatgatga tgaacacaga ggacggggca ctgtgctggg 360
agccaggggg cctgggagga gccsagacca gccttttacc tcggggtttt gagkccaaca 420
gggacgacag agacagtttc tagttagagc cttggctcca tttttggatg atttagcccc 480
gagttcctga gtctatttta ygccccttac gtactttgat agaactaagg aaatagtggt 540
tttragtgaa gggaaaggaa acccagaaac attttacgtt gcttttactt ctgtagtgta 600
gattgccccg gcccctctct gagccctgta gcatctgtga tagcttctgt cccttcatcg 660
gttcatgtca cagggatttt ctttcccagg aagcggacac ggagagtcag ccctaataaa 720
tgagcacatg ccctggctgt aaaaa 745

<210> 1062
<211> 409
<212> DNA
<213> Homo sapiens

<400> 1062
aattcggcac gagcttacat gaacaaggta gagctggagt ctcgcctgga agggctgacc 60
gacgagatca acttcctcat gtaagcttca tccacatcct tcttgatgag gacaaattcg 120
ttctccatct ctgtacgctt attgatctca tcctcatact tgttcttgaa gtcctccacc 180
agcccctgca tgttgccaag ctccgcctcc agcttcagct tctcctggcc cagagtctcc 240
agctgccgcc taaggttgtt gatgtagctc tcgaacatgt tgtccatgtt gcttcgagcc 300
gtcttctgct gctgcaggag gctccacttg gtctccagca tcttgttctg ctgctccagg 360
aaccgtacct tgtctatgaa ggaggcaaac ttgttgttga gggtcttga 409

<210> 1063
<211> 576
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(576)
<223> n = A,T,C or G

<400> 1063
aattcggcac gaggcgaggg cctggacgta gtgtcttcaa cagttgtaac agcagctgcc 60
atttgctgaa tgacagcatg tgtcacacac tctgctgagt attacaggca tttttttcta 120
atacaaatgc cccaagtgcc aggagagctt tcggcggcgc tcagacctca ccacgcacca 180
gcaagatcac ctaggcaagc ggccataccg ctgtgacatc tgtggcaaga gcttcagcca 240
gagtgccacg ctagctgtgc atcaccggac ccacctggag ccagcaccct acatctgctg 300
tgagtgtggg aagagcttca gcaacagctc cagctttggc gtgcatcacc gcacccacac 360
aggtgagaga ccttatgagt gcactgagtg tgggcggacc ttcagcgata tctccaactt 420
tggagcacac cagcggaccc acagagggga gaagccctac cggtgcactg tgtgtgggaa 480
acacttctcc cggagctcga atctcatccg ccacnaagaa aactcacttg ggcgaacagg 540
ctgngaaaga ttccagctga aggagagccc catttt 576

<210> 1064
<211> 610
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(610)
<223> n = A,T,C or G

<400> 1064

aattcggcac gaggaactat ctagtagctg gttccctccg aagtttccct caggatagct 60
gggacagcag ctgctgctgt ggaaaggcca gctggcaaga tgatggaaga aatctccatt 120
atggtagcct atgacgccca tgtwkwcagm maggmtrcas grwgargamw tscymaswag 180
wctgrtggcc atcagcargc ctgcarkwyt awrgtaccaa ccaagaagct gaagaaatat 240
gagaaagaat atccagacaa tgcgagagag tcagctgcaa caggaagacc caatggatag 300
atacaagttt gtatatttgt aggtaactcc agctgttgca tttatactgg gaatcttcat 360
aagaagctga gagaaagaga ggggaaaaag aaagtggctt tctactttca aaaatgaaac 420
aaaaaggaaa aatggcaaag tactgtttta gctgtgcatg tcatatccac aaagactttt 480
agcaggtgaa ctgttccaag actgacacaa ggatgtttca aacttgcctc tgtctgtaga 540
aaatgttaaa aataccaact cacttggaag gaaaaataaa aatcacaaag gtatattgag 600
cacaaaaaan 610

<210> 1065
<211> 837
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(837)
<223> n = A,T,C or G

<400> 1065
aaaaaattca tactggagag aaaccctatg agaaccctaa ccctaacgct tcagttgtcc 60
cagttctttc atgagcatga aaggagtcac atagagaaac cccatgaaag taagaaattt 120
gggaaagcct tcagtccttt ctgtttcttt caactacgtg aaaggattca cagtggagaa 180
agaccctgta agataattgg ctttaaatta cgagagactt gtgataggac agtaaaacct 240
agagttggag ttggatctct ggattgtgtt atgtcagtgt tggtaggtta ggaactagat 300
ttcccagaat ccattccatt tgtgattcca tgatacaatt caccagtaac ctatcttaca 360
tgagattcgg aagtaagtta aagaaggcat tagtcatggk ttggaagcac catacaggga 420
gacagctgtg tgaatacagg ctgtatggac acttgcttcc atcccatttt cctgcttctt 480
tgggttgcca atcaagagta tcctcaaaac gacttgactt taattttctc ggaggtgata 540
ggcttccaca caggtctcca gaagccctgc attgaatatc catccacact ttggttttcc 600
ttcagacatt attatgtctg tactaggcaa ctaattcaga ctgtcctggt kgggaatatt 660
ctgtgatgct ctgactcccc tagtctgtag acggaattgg catacggtct aatttgtgta 720
gtaagcacct ttgttcatac tagtagtgac tgtattctyg aktcagcctg atagctacca 780
tgctgcctgt caaaanccaa ccaagagggg agccttggta ccttcctgct ggaagtc 837

<210> 1066
<211> 850
<212> DNA
<213> Homo sapiens

<400> 1066
gcaagaccca ccaggtgcca gctgcccctg ccccttgccc atgccctgtg tgtgggcggc 60
ccctggccaa ccagggctcc ctgcggaacc atatgaggct ccatacagga gaaaagcctt 120
tcctgtgccc gcactgtggc cgggcgtttc gtcagcgggg caacctgcgt gggcatttgc 180
ggctccacac cgagggagcg tccttaccgc tgcccacact gtgccgatgc cttcccccag 240
ctgcctgaac tgcggcgcca tctcatctca cacaccgggg aggcccactt gtgcccggtg 300
tgtggcaagg ccctccgaga cccacacacg ctccgagctc acgagcgcct gcactccgga 360
ragaggccct ttccctgtcc ccartgtggc cgtgcttaca cgctggccac caagctgcgg 420
cgccacctca aatctcactt ggaggacaag ccctaccgct gccccacctg tggcatgggc 480
tacaccctcc cgcagagcct caggcggcat cagctcagtc accggcctga ggcaccctgc 540
agcccaccct ctgtgccttc tgctgcttct gagcccactg tggtgctcct gcaggctgag 600
ccacaactgc tggacacaca cagagaggag gaagtctccc ccgccaggga tgttgttgag 660
gtcaccattt cagaaagcca ggagaagtgc tttgtggtgc cagaggagcc agatgccgcc 720

cccagcctgg tgctaatcca taaggacatg ggcctcggcg cctgggcaga ggtggtggag 780
gtggagatgg gcacctgaca gctttgcctt ttgctgacac agctccataa agactcgtgc 840
tttctcaaaa 850

<210> 1067
<211> 546
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(546)
<223> n = A,T,C or G

<400> 1067
gcaggctctt atactatctt gcacaggctg gtctcgaact cctgggctca agcagtcatc 60
ctgcctcagc cttccaaagc tcagggatwr cagacrtgag ccacagcacc aggccaacaa 120
tatttcttaa agctcctgga gtgattccaa tatgcagcca aggttgaaaa cyacccttta 180
aaaggctcgg catccagtgt ggaagaccag cacwcwcacr tcmggagacc ttaccyggag 240
ccaggmtgcc cctgatcatc tctgataact ttaaaaggaa ggcctcagaa gcagccccag 300
aagcaaaagt ttctctctga ccttctcctg ccctcttgty tctggctttt cattctcccc 360
caaggctacc cataggaaac taggaatccc tcttccccaa gggcaggtca ttcaggaaac 420
caggaaccgg tttttaccca aagccaggcc ataaaaacct aaaattagtt cctnttcatt 480
cccctttccc ttttttgtgt taaaaattgg kttgggaaag gaatggtttt gaacntacct 540
gttttt 546

<210> 1068
<211> 432
<212> DNA
<213> Homo sapiens

<400> 1068
atcatttaga ggcagaagtt aagttctgca aggaggaact ctctggaatg aaaaataaaa 60
tacaagtagt tgtgcttgaa aacgaagggc tccagcaaca gctaaaatct caaagacaag 120
aggagacact gagggaacaa acacttctgg atgcatccgg aaacatgcac aattcttgga 180
ttacaacagg tgaagattct ggggtgggcg aaacctccaa aagaccattt tcccatgaca 240
atgcagattt tggcaaagct gcatctgctg gtgagcagct agaactggag aagctaaaac 300
ttacttatga ggaaaagtgt gaaattgagg aatcccaatt gaagtttttg aggaacgact 360
tagctgaata tcagagaact tgtgaagatc ttaaagagca actaaagcat aaagaatttc 420
ttctggctgc ta 432

<210> 1069
<211> 681
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(681)
<223> n = A,T,C or G

<400> 1069
ttgaancccct tnnnnntttg aaacccttta atacaagcta cttgttcttt ttgcaggatc 60
ccatcgattc gaattcggca cgaggaacta tctagtagct ggttccctcc gaagtttccc 120
tcaggatagc tgggacagca gctgctgctg tggaaaggcc agctggcaag atgatggaag 180
aaatctccat tatggtagcc tatgacgccc atgtwkwcag mmaggmtrca sgrwgargam 240

wtscymaswa gwctgrtggc catcagcarg cctgcarkwy tawrgtacca accaagaagc 300
tgaagaaata tgagaaagaa tatccagaca atgcgagaga gtcagctgca acaggaagac 360
ccaatggata gatacaagtt tgtatatttg taggtaactc cagctgttgc atttatactg 420
ggaatcttca taagaagctg agagaaagag aggggaaaaa gaaagtggct ttctactttc 480
aaaaatgaaa caaaaaggaa aaatggcaaa gtactgtttt agctgtgcat gtcatatcca 540
caaagacttt tagcaggtga actgttccaa gactgacaca aggatgtttc aaacttgcct 600
ctgtctgtag aaaatgttaa aaataccaac tcacttggaa ggaaaaataa aaatcacaaa 660
ggtatattga gcacaaaaaa n 681

<210> 1070
<211> 414
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(414)
<223> n = A,T,C or G

<400> 1070
agctgcagaa gctgcacagt gagatcaagt ttgccctaaa ggtcgacagc ccggacgtga 60
agaggtgcct gaatgcccta aaggagctgg gaaccctgca ggtgacctct cagatcctcc 120
agaagaacac agacgtggtg gccaccttga agaagattcg ccgttacaaa gcgaacaagg 180
acgtaatgga gaaggcagca gaagtctatn cccggctcnc nngagagcnn nncagacaac 240
tgtggggaac gctgngctgt ntgnanttgg tcccttgggt ttttttnct gcctaattta 300
tgttattncc aaccaacatg anctgactat aancgggttt ttaatnaaaa aaaaananaa 360
aaacnncnnc ccttttnatn tttntgnngg ngnnttcngt ccccgcnntn taaa 414

<210> 1071
<211> 423
<212> DNA
<213> Homo sapiens

<400> 1071
aattcggcac gagacgacgc agtggccctg aagtctgcag acattgggat cgccatgggg 60
cagacaggga cggacgtcag caaagaggcc gccaacatga tcctggtgga tgatgacttc 120
tcagccatca tgaatgcagt ggaggaaggc aagggtattt tttacaacat caaaaacttt 180
gtccgattcc agctgagcac gagcatctcc gccctgagtc tcatcactct gtccaccgtg 240
ttcaacctgc ccagcccccct caacgccatg cagatcctat ggatcaacat catcatggat 300
gggccaccgg cgcagagctt gggggtagag cccgttgaca aagacgcctt caggcagcca 360
ccacggagtg tgcgggacac catcctcagc agagccctca tcctgaagat cctcatgtcc 420
ccg 423

<210> 1072
<211> 1586
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(1586)
<223> n = A,T,C or G

<400> 1072
ccgctgctca cacctttcta ctgaagcatc ctgatgacga aatgatgaag aggaacatgg 60
catattataa gagcctgcct ggtgccgagg actacattaa agacctggaa accaagtcat 120

atgaaagcct gttcatccga gcagtgcggg catacaacgg tgagaactgg agaacatcca 180
tcacagacat ggagctggcc cttcccgact tcttcaaagc cttttacgag tgtctcgcag 240
cctgcrrggg ttccagggag atcaaggact tcaaggattt ctacctttcc atagcagatc 300
attatgtaga agttctggaa tgcaaaatac agtgtgaaga gaacctcacc ccagttatag 360
gaggctatcc ggktgagaaa tttgtggcta ccatgtatca ttacttgcag tttgcctatt 420
ataagttgaa cgacctgaag aatgcagccc cctgtgcagt cagctatctg ctctttgatc 480
agaatgacaa ggtcatgcag cagaacctgg tgtattacca gtaccacagg gacacktggg 540
gcctctcrga tgagcacttc cagcccagac ctgaagcagt tcagttcttt aatgtgacca 600
cactccagaa ggagctgtat gactttgcta aggaaaatat aatggatgat gatgagggag 660
aagttgtgga atatgtggat gacctcttgg aactggagga gaccagctag cccacagcaa 720
ccaaagagac ttcctcttgg cgttcaggaa acacagattc tttgtccttt tcccaacagc 780
ccaggctgtt gatacctcag agccttctct ttactctcca aagtgaaagg gaagcccccg 840
tctctctaac tgcatgtcat caggggtgag cctgcctttc ctatcttcac acctgccacc 900
tcatgttcac acctatcttt ctcacctttt ttttgagatg gagtctcgct ctcttgccca 960
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taattttgta tttttagtag agacggggtt ttgccatgtt ggccaggctg gtctcgaact 1140
cttgacttca gatgatccat ctgccttggc ctcccacagt gctgggatta caggcgtgag 1200
ccaccatgcc cggcctcttt ctcaccttta cacctgtctt cttatcctca catctgtttt 1260
cacaccttca tccctgtctt cctcatgttc acacttgtct tccccatgtt catagctgcc 1320
tttcttacca ttttggtttg aagggcagtc ttctctggct tgtttttttg tttttcccag 1380
aaaatcagta ttattttta aataagaaaa acattcctag aagatgataa ttgtgaaaac 1440
ctcctttggc ttatttgctt ttccaggatt ttaagtctcc tttctcccca atccgggaaa 1500
agatgggtgg aagacataag gctaaaattt tctccaggcc ttcacaatgg gtcctttcac 1560
tttgggtctg gactttgtaa ccaatn 1586

<210> 1073
<211> 643
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(643)
<223> n = A,T,C or G

<400> 1073
aattcggcac gaggccacag ccgggtcacg tggccggttg ccccccatga cttgctggct 60
gcggggcagt cacggtgacg ttcggtccga cctgccgagt ggccaggcta cctcagtcac 120
ctgtgtggtc cnantgctng catcggacct gggacccatg cgcaagagtt accgcgggga 180
ccgagaggca tttgaggaga ctcatctgac ctcccttgac ccagtgaaac agtttgctgc 240
ctggtttgag gaggctgttc agtgtcctga catagggggaa gccaatgcca tgtgtctggc 300
tacctgcacc aragatggaa aaccctctgc tcgcatgttg ctgctgaagg gcttcgggaa 360
agatggcttm cgcttcttca ctaacttcga gagtcgaaaa ggaaaagagc tggactctaa 420
tccctttgct tcccttgtct tctactggga gccacttaac cgtcagtgcg gtgtggaagg 480
cctgtgaaga aactgcctga ggaggaggct gaagttgcta ctttccactt ccccggcccc 540
aagaagcaag ccaaganttg gggcttgtt ggttcaagcc aaccagaagt ttctggtgaa 600
ttccctggat tcggggaagt atctgaagaa aagaaaaaat ggh 643

<210> 1074
<211> 675
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature

<222> (1)...(675)
<223> n = A,T,C or G

<400> 1074
gcggccggcg gggtgctggg ttcccgtctg ctgcctctcg gagagtcccg ggtgactgcc 60
gcaggctcca tcgccctgtg gcctgcaggt attgcgagat ttatagggag gacgctggga 120
cccccaaaag ctgggaaatg ggactattgg cattcaggga tgtggctcta gaattctctc 180
cagaggagtg ggaatgcctg gacccagctc agcggagttt gtatagggat gtgatgttag 240
agaactacag aaacctgatc tcccttggtg aggatagctt caatatgcaa ttcctatttc 300
acagtcttgc tatgtctaar ccagaactga tcatctgtct ggaggcaagg raagagccct 360
gggaacgtga acacagagaa gacagccaaa cactcagagt ctcagctctg tcacccaggg 420
ttgggaatgc aatgggtgcg atcttcggct tcactggcaa actggcgtcc cgggtttcag 480
ggtcatttct cctgncctca gcctcctgag gtagcttgag gattacagtt ttgtcttctt 540
atctttactt gaaggacatt ttgcccagag cagggggcct tncaagtttt tcattttccc 600
aaaaagttga tgctttaggn agggttttng aaagngtttg ttcttttang gaattacggc 660
tttaggggga ttact 675

<210> 1075
<211> 348
<212> DNA
<213> Homo sapiens

<400> 1075
gccgcggggc cgggcggctg caatatggcg gaggcggaag gggaaagcct ggagtcctgg 60
ctcaataaag ccaccaatcc ttccaaccgc caggaggact gggaatacat aattggcttc 120
tgtgatcaga tcaacaagga gctggaaggg tgagtctcag cactgtgggg gcagctgaga 180
gggagcggac tgggaagggg aacaaccatg gccaaggagg gccagccagg tagccccagg 240
cttagtgcac tggagtgtgt tctgcttgtc ccccaggcca cagatcgccg tccgactgct 300
ggcccacaag atccagtccc cacaggaatg ggaggcgctc cacgccct 348

<210> 1076
<211> 403
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature
<222> (1)...(403)
<223> n = A,T,C or G

<400> 1076
gttttgttta tttctgcaag attgtgaaaa caaaactttg ggtatttgtt tcccattcag 60
gagatctggg agtgacttca tgtatttctt taacagtctt tgatcgtcac ctttcaattt 120
agactctaga gacagggaga ttgatgattt ctcagcaaag aagcttgtat ttgagttgaa 180
agttgaaaat gaaggcaagg tcttcattta aactttaaaa tttctacaca tttctttcaa 240
gtattaaatt tttcttttgc agttattcta cctatggaaa tccaggcagc caaggctatg 300
gacaagcatc acaaagctat tctggctatg ggcaaacgac tgattcctct tatggacaga 360
actacagcgg ntactccagt tatggacaaa gttattcaca gtc 403

<210> 1077
<211> 421
<212> DNA
<213> Homo sapiens

<220>
<221> misc_feature

<222> (1)...(421)
<223> n = A,T,C or G

<400> 1077
catggctgtc cactccttgc ctgtccccac agctcttcct gcagactctt ttttcccgag
gatcctgtta agattgtccg ggcccaaggg cagtacatgt acgatgaaca gggggcagaa 60
tacatcgatt gcatcagcaa tgtggcgcac gttgggcact gccaccctct cgtggtccaa 120
gcagcacatg agcagaacca ggtgctcaac accaacagcc ggtacctgca tgacaacatc 180
gtggactatg cgcagaggct gtcagagacc ctgccggagc agctctgtgt gttctatttc 240
ctgaattctg ggtcagaagc caatgacctg gccctgaggc tggctcgcca ctacacggga 300
caccaggacg tggtggtatt agatcatgcg tatacgggca cctgactncc tgattgacat 360
a 420
421

<210> 1078
<211> 3529
<212> DNA
<213> Homo sapiens

<400> 1078
aagaattcct attggaggtg ttaaatctac aagcaagaca tatgttataa gtcgaactga
accagcgatg gcaactacaa aagcaattga tgactcttcc gcgtctattt ctctggccca 60
gcttacaaag actgccaatc tggctgaagc caatgcttct gaagaagata aaattaaagc 120
aatgatgtcg caatctggcc atgaatacga cccaatcaat krcaygarga aacctctagg 180
tccaccacct ccatcttaca cgtgtttccg ttgtggtaaa cctggacatt atattaagaa 240
ttgcccaaca aatgggggata aaaactttga atctggtcct aggattaaaa agagcactgg 300
aattcccaga agttttcatg atggaagtga aagatcctaa tatgaaaggt gcaatgctta 360
ccaacactgg aaaatatgca ataccaacta tagatgcaga agcatatgca attgggaaga 420
aagagaaacc tcccttctta ccagaggagc catcttcttc ctcagaagaa gatgatccta 480
tcccagatga attgttgtgt ctcatctgca aggatattat gactgatgct gttgtgattc 540
cctgctgtgg aaacagttac tgtgatgaat gtataagaac agcactcctg gaatcagatg 600
agcacacatg tccgacgtgt catcaaaatg atgtttctcc tgatgcttta attgccaata 660
aatttttacg acaggctgta aataacttca aaaatgaaac tggctataca aaaagactac 720
gaaaacagtt acctcctcca ccaccccaa taccacctcc gagaccactg attcagagga 780
acctacaacc tctgatgaga tctccgatat caagacaaca agatcctctt atgattccag 840
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ccttggcccc tcctgtgtct ggaaatccgt cttctgctcc agctcctgta cctgatataa 960
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taaatactgc tcgtccaggt ggtggtcgac caggctggga acattccaac aaacttggct 1260
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ctctccctcc gggtgttcct cctccacagt ttctcctca gtttcctcct ggccagccac 1500
cacccgctgg gtatagtgtc cctcctccag ggtttcctcc agctcctgcc aatttatcaa 1560
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accccagaag aggcagaggc aagagccgca attaccgttc acgtctagat ctcatggata 1980
tcatcgatct aggtcaaggt caccccctta cagacgctat cattcacgat caagatctcc 2040
tcaagcgttt aggggacagt ctcctaataa acgtaatgta cctcaagggg aaacagaacg 2100
tgaatatttt aatagataca gagaagttcc accaccatat gacatgaaag catattatgg 2160
2220

gagaagtgtt gactttagag acccatttga aaaagaacgc taccgagaat gggagagaaa 2280
atatagagag tggtatgaaa aatattataa aggttatgct gctggagcac ascctagacc 2340
ctcagcaaat agagagaact tttctccaga gagatttttg ccacttwaca tcmggaattc 2400
tcccttcaca agaggccgca gagaagacta tgttggtggg caaagtcata gaagtcgaaa 2460
cataggtagc aactatccag aaaagctttc agcaagagat ggtcacaatc agaaggataa 2520
tacaaagtca aaagagaagg agagtgaaaa cgctccagga gatggtaaag gaaataagca 2580
taagaaacac agaaaaagaa gaaaagggga ggaaagtgag ggttttctga acccagagtt 2640
attagagact tctaggaaat caagagaacc tacaggtgtt gaagaaaata aaacagactc 2700
attgtttgtt ctcccaagta gagatgatgc cacacctgtt agagatgaac caatggatgc 2760
agaatcaatc acttttaaat cagtgtctga aaaagacaag agagaaaggg ataaaccaaa 2820
agcaaagggt gataaaacca aacggaagaa tgatggatct gctgtgtcca aaaaagaaaa 2880
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tcgatctgaa cctccaatta aaaaagccaa agaggagact ccgaagactg acaatactaa 3000
atcatcatct tcctctcaga aggatgaaaa aatcactgga acccccagaa aagctcactc 3060
taaatcagca aaagaacacc aagaaacaaa accagtcaaa gaggaaaaag tgaagaagga 3120
ctattccaaa gatgtcaaat cagaaaagct aacaactaag gaagaaaagg ccaagaagcc 3180
taatgagaaa aacaaaccac ttgataataa gggagaaaaa agaaaaagaa aaactgaaga 3240
aaaaggcgta gataaagatt ttgagtcttc ttcaatgaaa atctcgaaac tagaagtgac 3300
tgaaatagtg aaaccatcac caaagcgcaa aatggaacct gatactgaaa aaatggnatag 3360
gacccctgaa aaggacaaat ttctttaagt gcgccaccaa aaaaatcaaa ctcaacagag 3420
aaactgggaa gaaaattgga agtacagaaa atatatcaaa cacaaaagaa ccctctgaaa 3480
aattggagtc aacatctagc aaagttaaaa aaaaaaaaaa aagtcgagc 3529

<210> 1079
<211> 401
<212> DNA
<213> Homo sapiens

<400> 1079
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gacactcgcc gcaggctcct agagaggggc tacaagcacc cggtcctcct actacaccct 120
ctgggcggct ggaccaagga tgacgatgtg cctctagact ggcggatgaa gcagcacgcg 180
gctgtgctcg aggagggggt cctggatccc aagtcaacca ttgttgccat ctttccgtct 240
cccatgttat atgctggccc cacagaggtc cagtggcact gcaggtcccg gatgattgcg 300
ggtgccaatt tctacattgt ggggaggacc ctgcaggaat gccccatcct gaaaccaaga 360
aggatctgta tgaacccact catgggggc aaggcttgag c 401